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EDITORIAL

AN ACKNOWLEDGMENT.

Since the last number of the JOURNAL was issued the interpretation of the law governing exemptions has permitted the release of drafted medical students now actually in course of study for the degree, thru their enlistment in the Enlisted Reserve of the Medical Department of the Army. This is as it should be and, while it satisfies the justice due the medical student, at the same time it puts the student in service, subject to call when he may be fit.

The ruling regarding medical students came as an executive order from the President, and the credit for recommending the ruling is due, we are advised, to Provost Marshal General Crowder,

whose interest and discernment discovered the way of interpreting the law of June, 1916.

This acknowledgment should be generally known, as the average medical student and many of their friends may have blamed General Crowder for his former promulgation of rules as set down by the existing law.

THE OUTLOOK.

At the beginning of the campaign for the organization of an increased medical department for the army, and with the large demand upon the medical colleges for their interest and influence in encouraging recent graduates to join the services, there was a small inclination to readjust the standards of entrance for medical students so that a large number of youths might be induced to engage in the medical career. This idea has not flourished. In fact, the inclination seems to be rather to present the opportunity offered to the better educated young man to take up the study of medicine.

There has never been a time when the outlook was better. The military exigencies have made a considerable demand upon the existing medical profession, and it will be several years before the deficiency will be compensated. Meantime the scientific development of medicine goes on rapidly, and it requires an active intelligence in the physician and in the medical student to keep pace with the advance.

The classes in medical schools have grown smaller each year for nearly ten years, due to the more rigid requirements of admission and in course. The results are now quite evident in the demand for doctors in smaller communities and in the serious inadequacy of interns in the hospitals. These are, in themselves, indices of a need for more doctors in this country. Up to 1908 the constant proportion of doctors to the population was about one to five hundred, and this ratio had varied little in fifty years. Now that proportion is more like one to seven hundred and fifty, and, if there is no change in the number of students entering medical schools, the relative number will grow more and more disproportionate. It is idle reasoning to submit that Russia has only one doctor to six thousand people, or that in some other country the population is one to twelve hundred, for we know now that, with the present

supply of medical men, the majority gravitating to the larger cities, there is an unsatisfied demand for more.

The former complacent attitude of medical colleges must change. Students in the subsidiary schools must be educated to the possibilities of a medical career.

The arduous life of the doctor in general practice is not attractive, but, with the development of State medicine and its ramifications, ample variety of occupation is open to those who are intelligently trained. More than this, the present demand for medical officers in the army will, in itself, create a future need for such, and the organization of the military side of medicine will make this a career worth while, particularly as the men who have gone into service will bring home a glamor of experience which will spark the enthusiasm of many a young embryo doctor coming on.

With a proper college preparation, the study of medicine is more attractive and interesting now than it has ever been. The medical course is no longer a hodge-podge of material which had to be taken home and digested afterwards; each course in the medical school to-day is systematically presented as one part of a complex, which, when joined in the student's mind, becomes a working intelligence trained for special endeavor.

With so many youths coming on, and with so many of the occupational fields crowded, for once a chance offers in medicine, and the youth should be advised that now is the time to come in.

GOVERNMENT TRAINING OF MEDICAL OFFICERS.

The Wisconsin State Committee of National Defense, Medical Section, has gone on record in recommending by resolution that Congress create a national college for the training of medical officers for the army and navy and of a National Board of Health. Immediate action is urged.

There should be no great difficulty in accomplishing such an object, and perfect plans may develop as the suggested steps develop.

There are now in operation an Army Medical School, a Navy Medical School and an excellent organization of laboratories and field service in the U. S. Public Health Service. In this time of war these already have some sort of coördination, for, as provided in its creation, the Public Health Service is now a part of the machinery of war.

By the establishment of a national college for medical officers all three services could be brought together in a faculty which could be enlarged so as to take care of a considerable student body.

Men graduated from Class A colleges, with proper clinical training, should be qualified for admission to such a college, and a year of intensive training, as now given in the Army and Navy Medical Schools, would satisfy the desideratum for trained medical officers. By making such a course obligatory upon members of the Medical Reserve Corps hereafter, before advancement in rank is allowed, the whole plan would make for an efficient medical corps.

Conflict of authority and the burden of bureaucratic red tape forms could easily be obviated by putting such a college under the government of a body of administrators made up of retired officers in the services joined by enough civilians of professional pedagogic medical experience to make a well-rounded council to conduct the affairs of such a school. Their administration should be free of any departmental interference. A democratic institution, with a liberal method of conduct and of teaching, would be popular and efficient.

ELIMINATE WASTE.

As suggested again by the Committee of Public Safety of Pennsylvania, it is time to warn hospital authorities, physicians and others using and dispensing drugs and biological products to eliminate waste through carelessness or misapplication.

The demand for some drugs and chemicals, already unusually large, will become enormous if the war lasts long, and the supply is, of course, more than apt to diminish further through lessened production.

Overstocking should be avoided and preparations subject to deterioration should be kept in the most careful manner.

Any one familiar with the management of hospitals knows how wasteful are many surgeons in ordinary times. Everything of that sort is always sinful extravagance, but at the present time it becomes unpardonably criminal.

ORIGINAL ARTICLES

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. Reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

URETERAL STRICTURE.*

By H. W. E. WALTHER, M. D., New Orleans.

Stricture of the ureter exists far more frequently than was once supposed and if allowed to go uninterrupted will sooner or later produce serious sequelæ. It has only been with recent years that the finer points in the technic of renal and ureteral diagnosis have been sufficiently perfected to render the findings of a pathological condition such as this reliable. In considering this subject one must clearly differentiate between an obstruction of the ureter and true stricture. As pointed out by Kelly, obstruction is the generic term for any hindrance to the downflow of urine, while stricture is specific in its designation, being limited to the intrinsic narrowings due to disease of the ureteral walls.

The attempt to explain a rational etiology of many perplexing surgical conditions of the kidney has occupied no little place in the recent investigation and writings of genito-urinary surgeons. That a certain proportion of these renal conditions, where the true causative factor remained unrecognized, might have been cases, of ureteral stricture seems not only possible but highly probable. The excellent contributions of Hunner to this interesting subject have done much to elucidate its etiology and mode of treatment. His recent report of 50 cases of ureteral stricture and review of the literature is the most comprehensive which has yet appeared.

Strictures of the ureter have been broadly classified under two heads, viz., *congenital* and *acquired*. Whereas formerly we have been led to believe that the great majority of ureteral strictures were congenital in origin, recent careful investigations have proven conclusively that this variety of ureteral narrowing is extremely uncommon and that infection plays by far the most important part in the production of these strictures. The acquired stricture cases are of two kinds, the *traumatic* and the *inflammatory*. The most

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common form of traumatic stricture is that type following operations upon the ureter as ureterotomy for calculus, after a hysterectomy, or following a reimplantation of the ureter after bladder resection. Of the inflammatory types, ureteritis, periureteritis and ureteral calculus are the most common. Strictures produced by tubercular lesions of the ureter secondary to renal tuberculosis or those caused by ureteral calculus irritation will not be considered in this paper.

A narrowing of the ureteral lumen brought about by a ureteritis or a periureteritis of an infective origin may be due to one of several organisms. The vast majority of non-tubercular infections will be found to contain either the colon bacillus, the staphylococcus, the streptococcus, the bacillus proteus or lastly, and most infrequent, the gonococcus. Of the 50 cases personally observed by Hunner, twenty-eight had infected urines. In only two of these infected cases was the gonoccoccus demonstrated as being the causative factor. That the ureteritis is a secondary infection, usually engrafted upon this structure from a primary focus in either the kidney or in the bladder, undoubtedly accounts for the fact of its being neglected. Inflammation of the ureter has received scant attention from the cystoscopist until quite recently. The infected kidney has occupied so much of the urologist's attention in the past that any possibility of an involvement of the ureter has scarcely ever entered his mind. Yet we are all ready to admit that cystitis is a fairly common complication of pyelonephritis, pyonephrosis, and kindred renal infections. Then what plausible reason can be advanced why the "connecting-link" between the kidney and the bladder, the ureter, should not share in infections harbored in these organs As a matter of fact inflammation of the ureter frequently exists, mostly in a mild form, however, and the treatment directed at the affected kidney serves equally well for the diseased ureter. Sugimura demonstrated ureteritis in every instance of renal or vesical infection that came to autopsy. Therefore if the renal infection is wiped out the ureteritis is usually seen to disappear with it. But occasionally, for some unexplained reason, chronicity asserts itself in the ureteral lesion and it is then when ureteral stricture is imminent.

Periureteral inflammations, if allowed to go on uninterrupted, have a tendency to produce narrowing of the ureteral lumen the same as ureteritis. These inflammations, occuring most frequently

in the extreme lower portion of the ureter, while most frequently due to infection of the fallopian tube in the female or to infection of the vas deferens and seminal vesicle in the male, may be brought about by infectious inflammatory conditions intimately associated with the ureter.

There are three points along the route of the ureter most often affected by stricture formation, these points corresponding to points of physiological narrowing in this structure. They are, (a) at the uretero-pelvic juncture; (b) at the uretero-iliac juncture; and (c) at the uretero-vesical juncture. The last named constriction, located just above the bladder, is the most common site for stricture formation and it is with this type (uretero-vesical) that this paper will deal principally.

The diagnosis in many instances is by no means easy. Subjective symptoms furnish no clue. As a rule pain, if present, is referred to the kidney area of the affected side. It is not difficult to understand why this should be. The obstruction in the ureter, failing to furnish free drainage for the urine from the corresponding kidney, causes back pressure which in turn produces dilatation of the renal pelvis. It is this distention which produces the pain. Cystoscopy and ureteral exploration are necessary to scientifically diagnose the condition. Yet due to the ease with which one may fall into error, it is well for even experienced cystoscopists to hesitate before making a hasty diagnosis of ureteral stricture. Various intraureteral folds or valve formations, kinks of this structure, neoplasms, calculi, spasmodic contracture, or compression upon the ureter from without (as from abdominal organs or tumors) may retard the passage of ureteral catheters or bougies thereby simulating stricture. Therefore repeated ureteral explorations must be carried out in an effort to pass the obstruction before anything definite is determined. Spasmodic contracture, already alluded to above, observed not infrequently in the mere passage of the ureteral catheter upon a normal individual, must ever be remembered lest one misinterpret such a condition as being a strictural obstruction.

By inserting a catheter up as far as the block and then waiting five or ten minutes the spasm will usually wear off and then the catheter will easily go up to the kidney. This will not occur if true stricture is present.

One of the most exacting of the procedures advocated for diagnosing a stricture in the ureter is by introducing an olive-tipped

ureteral bougie of the Pasteur type into the ureter up to and beyond the point of narrowing and then attempting to withdraw it. Should the shoulder of the olive become caught and some difficulty be experienced in withdrawing same, stricture is very probably the cause. For whereas many conditions other than strictures may retard the passage of an instrument up the ureter, I know of no condition besides stricture which will grasp an instrument upon withdrawal. Ureterograms, in which the outline of the ureter is obtained in the X-ray picture, are also of distinct aid in arriving at a diagnosis provided that the opaque solution can be injected above the obstructing point. The typical picture here obtained is that of the ureter appearing as a dilated pouch above a marked narrowing in the lumen, said narrowing corresponding to the strictured point.

The two procedures above enumerated are particularly adapted to strictures of the lower ureter. Where the constriction occurs higher up, the diagnosis cannot always be made in this way. Frequently the true condition, in the uretero-pelvic variety, is only recognized at operation.

The treatment divides itself under two main heads, viz., (a) transurethral-intravesical manipulations; and (b) operative surgical procedures. Of the simpler methods dilatation of the ureter by means of filiforms, bougies, catheters and mechanical dilators employed through an operating cystoscope furnish very satisfactory means of attaining the desired results. When these methods fail operative interference as by extraperitoneal ureterotomy or by pyelotomy on the kidney of the affected side and doing retrograde ureteral dilation with instruments through the pyelotomy wound. Strictures are most commonly met with in the lower third of the ureter and as this type of narrowing is amenable to dilatations by means of operative cystoscopy it is of this mode of treatment that the writer desires to draw particular attention.

Although with the ordinary double catheterizing cystoscope one can accomplish a fair amount of dilating of these strictures, the fact that it accommodates bougies or catheters only to the size of 6 F. and will not permit the use of operative instruments at all, renders its field of usefulness extremely limited. Those doing gynecological urology extensively seem to favor the Kelly endoscopic tube for this work. It undoubtedly possesses some advantages over the lens instruments, but its use is limited to the female bladder.

The operative cystoscope of Buerger is universally used to-day for instrumental manipulation in transurethral work, be it either to the bladder or the ureter. This cystoscope contains a single catheter channel which will admit of any instrument up to 11 F. and its outer sheath will accommodate dilating metal olives up to 20 F. An insulated catheter is used in conjunction with these metal olives so that high frequency current can be applied to the ureteral constriction. The heat obtained in this way, directly applied to the affected part, produces a relaxation of the structures which greatly facilitates ureteral dilatations. The operative cystoscope permits of the use of several small filiforms or bougies at the same time; special dilating catheters of which the Garceau catheter is a type can be employed to advantage. The Garceau catheter at its tip is sized 5 F., from which point it gradually gets larger until at about 15 cm. from the tip it measures 11 F. This catheter will enter most ureters easily and has been very popular for ureteral dilatation work. Numerous ingenious operative instruments have been devised for use through the operative cystoscope and a few of these are useful in ureteral stricture. The intravesical scissors or the knife are employed in meatotomy when the ureteral orifice is found abnormally small. Mechanical dilators for the ureter (either two or four-bladed) of which the Bransford Lewis ureteral dilator is a type, has proven of considerable assistance in surmounting strictures. Whereas any one of the above mentioned instruments may produce the desired result, it is not infrequently the case that one is forced to resort to all of them.

Should one fail after repeated trials to overcome the stricture by cystoscopic means, surgical interference should then be considered. However it is only rational that the simplest procedures be tried first. An anesthetic is rarely required in these cystoscopic manipulations. When found necessary, bladder instillations of solutions of novocain or alypin usually suffice. Apart from these local anesthetics the only other drugs which have a place in this condition are pantopon and papaverin. Experimental pharmacology has recently proven that, in inflammatory conditions of the ureter, pantopon hypodermatically is superior to morphin, not only for the relief of the ureteral colic but also for diminishing the muscular contractions with the ureteral wall. Papaverin, which exerts a direct tonus-reducing effect upon all organs composed of

smooth muscle fibers, has been found to cause relaxation of the ureteral musculature, when solutions of this drug are injected directly into the ureter through a ureteral catheter. My personal experience with both of these drugs has been fairly extensive and I cannot but feel that in them we possess a valuable adjunct in the treatment of ureteral inflammations.

In conclusion the writer desires to state that it is not the purpose of this paper to unduly accentuate the prevalence of ureteral stricture. Though the condition is not extremely common, yet, as stated in my opening paragraph, it is not as rare as we have been led to believe. We should remember that this condition may be a possible cause for some of the intractable cases of renal infection failing to respond to the usual treatment employed in such instances. The mere fact that the ureter admits of a 6 F. catheter does not necessarily rule out stricture any more than that it proves that the kidney on the same side is receiving proper drainage. Therefore in all obstinate renal conditions, where every effort of the clinician has met with failure, one should routinely sound the ureter for stricture. It may be possible that by this means we will be able, in many instances, to achieve a successful termination of an otherwise incurable case.

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CARBUNCLE OF THE UPPER LIP.*

By MUIR BRADBURN, M. D., New Orleans.

The serious nature of this condition is not, I believe, generally recognized; the last case which was referred to our service by a doctor with no considerable surgical experience had been allowed to remain untreated, or rather temporized with, for forty-eight hours after he was first consulted and about one week after the onset of the infection. Dr. John B. Murphy[1] in speaking on this subject said:

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"I recall a man whom I visited some years ago. He had a carbuncle on his upper lip and I had him come to the hospital, although I said it was not anything serious and he would be all right in forty-eight hours. I was not so familiar then with the danger of this condition as I am now. We opened it up at the hospital promptly, but he was dead in thirty-eight hours."

Unless one has had experience with these cases it is likely that he will underestimate the gravity of the condition.

Of 169 cases of carbuncle treated in Charity Hospital I was able to find only four cases of carbuncle of the upper lip; three of these having been admitted to the service of Dr. Parham; in preparing a report for one of his staff meetings I became interested in this subject. Brief clinical notes on these cases are as follows:

Case 1. F. N., white male. Age 48. Admitted November 24, 1915. Died December 3, 1915.

Duration before admission, two weeks. Had "cold" and became "sore about nose." Temperature on admission 101° reaching 106° before death. Urine examination showed no sugar. Cultures from lip showed staphylococci. Treatment, multiple incisions. Lysol, 1 per cent as wet dressing. Silvernitrate, 1/10000 (210 c. c.) intravenously.

Case 2. R. R., male. age 61. Admitted April 17, 1916. Discharged, May 1, 1916. Duration before admission, six days. Record reads: "Upper lip much swollen. Recent incision showing tenacious pus." Treatment: incision in clinic on morning of admission and another subsequently in ward. In this case the temperature was never above 99°, nor pulse above 90.

The only other case occuring in an old patient of which I have record is one reported by Masterman[2] in a woman seventy-three years old. It is remarkable that both these cases recovered.

Case 3. A. W. Age 20. Admitted October 14, 1914. Died October 24, 1914. Duration before admission, seven days. Treatment: Incision. Four days after admission the lip condition had so improved that he was allowed on porch. Following day he complained of headache. October 20: Nurse's notes record "oozing from nose. Rhinologists reported pus coming from frontal sinus." Death on the tenth day after admission from acute suppurative meningitis. Cultures from lip and from spinal fluid showed staphylococcus aureus.

Case 4. F. W. B. Age 38. Admitted November 11, 1916. Discharged December 10, 1916. Duration before admission, one week. On the day of admission multiple incisions were made in the upper lip. One incision extending parallel to and 3/8 inches above the vermilion border of the lip and four others at right angles to this. A 5 per cent solution of carbolic acid was injected into the infiltrated tissues between the incisions by Dr. F. W. Parham. At this time some redness was evident in the lower lid, four days later the incision had to be extended up to and through the lower lid, pus being liberated by last incision; although no thrombosis was made out, the extension of the process seemed to indicate a thrombosis extending from the superior labial to the facial and then to the inferior palpebral vein. The dressings were kept saturated with a 5 per cent sodium chloride and 1.1 per cent sodium citrate solution. The temperature four days after admission

reached 104° having been 100° on admission. It remained at a level of 102° until the 15th day. Pulse ranged from 90 to 126. Urine examination showed no sugar.

In a paper entitled "The Surgical Importance of Apparently Simple Carbuncles and Furuncles of the Upper Lip," Chas. A. Powers[3] recognized the gravity of these infections and insisted on early surgical intervention. He reports four cases of upper lip infections, one having meningitis as a complication with a consequent lethal termination. Another case shows the tendency of the infection to extend upwards. Briefly they were as follows:

(1). Young physician, death (2 days) acute pyemia and septic meningitis. No record of what was done.

(2). Young gentlemen (medical student). Swelling extended up cheek alongside of the nose to the margin of the orbit. Recovery.

(3). Boy seventeen years old; furuncle of 24 hours standing. Immediate incision; recovery.

(4). Young man of 22. Furuncle, 48 hours. Necrotic area excised. Cultures showed staphylococcus pyogenes aureus.

Etiology. In considering the etiology we find from the above cases in which cultures were made that the *Staphylococcus pyogenes aureus* is the offending organism. Only one of these cases was under 38 years; this occuring in a young man of 20. The four cases reported by Powers occurred in young men, those in which ages are given, being 17 and 22. About fifty per cent of cases occur in young adults; in one case the irritation caused by a discharge from the nose in a patient with a cold seemed to initiate the trouble.

The prognosis in these cases is grave. Dr. Murphy in discussing the subject said:

"A furuncle on the upper lip is always a very serious lesion. It always puts the patient in a dangerous situation. It may, in fact, be stated as a general truth that whenever a furuncle or carbuncle occurs in a rich lymphatic zone, the patient's life becomes enormously endangered by it. A carbuncle, however, on the upper lip is, as a rule, fatal, and this rule, too, may be generalized to the effect, namely, that a carbuncle in any zone richly supplied with lymphatics is, usually, fatal."[4]

In the four cases at Charity Hospital the mortality was fifty per cent. One fact that strikes us in examining Powers' cases is the early incision within twenty-four to forty-eight hours in upper lip infections, whereas in our series not one was admitted less than six days after the onset of the infection. The gravity of the prognosis depends not only upon the rich lymphatic supply, but also upon the occurrence of thrombophlebitis extending from the superior labial to the facial thence to the angular vein into ophthalmic, and finally

reaching the cavernous sinus. The cavernous sinus may also become involved through the pterygoid plexus[5]. Johnson[6] mentions also the danger of thrombosis extending downwards into the internal jugular vein.

Meningitis is a complication to be feared, occurring in one case both in Powers' and in our series. It may occur either through extension to the cavernous sinus and thence to the meninges, or through the lymphatics; in one of our cases presumably through the lymphatics of the nose as these communicate with the subdural and subarachnoid spaces (Gray[7]).

In considering treatment I would urge early incision with injection of 5 per cent carbolic solution into the infiltrated tissue. Once the case ceases to be early we have a difficult problem confronting us. Before considering the treatment of these cases I would like to give brief notes of two cases, one reported by Dodds[8] and another by Walters[9]. In Dodds' case there was extensive involvement of the lip and face; the temperature was 104°, pulse 160, respiration 40°; patient semi-comatose and delirious. Hemologous vaccin of *Staphylococcus pyogenes aureus* administered, 500,000,000 at first; 24 hours later, 1,000,000,000; in seventy-two hours 500,000,000 of an autogenous vaccin were given. He reports "Perfect recovery in the course of a week or ten days."

Walters' case was one of "severe facial carbuncle with Ludwig's angina and parotitis." Cultures from upper lip showed *Staphylococcus aureus.* This case had temperature of 103° and pulse of 140. Stock vaccin of 50,000,000 staphylococci was given, followed twenty-four hours later by 25,000,000 of an autogenous vaccin. In four days another 25,000,000 and ten days later 50,000,000. It was noticed in withdrawing blood into a Wright's blood capsule to estimate the opsonic index that it clotted almost immediately. Citric acid one dram in every four hours for four doses was given and repeated on several subsequent days, the dose being reduced later to one-half dram. Solly,[10] in commenting on this treatment, says that "the citric acid so lowered the coagulability of the blood that the lymph containing large amounts of antibacterial and antitryptic bodies was freely admitted to the infected parts and the organisms were thereby destroyed before formation of pus or destruction of tissue could take place." He attributes the treatment to Sir A. E. Wright who used the citric acid in a case of Ludwig's angina. In this case staphylococci were obtained on culture; blood

withdrawn from the veins clotted almost immediately. "Administration of one dram doses of citric acid every three hours for six doses caused rapid improvement and finally complete recovery."

In Walters' case no incision was made and he states that the only sign of the illness that was left was a dimple in the left cheek.

Although many of us are inclined, I believe, to discredit the value of vaccin, especially in acute grave infections, yet the results in the above cases seem to indicate their value.

I would suggest then in these cases that

(1.) Multiple incisions be made; these incisions extending down to the mucous membrane.

(2). The injection of a 5 per cent carbolic acid solution in an attempt to kill the organism.

(3.) The application to the wounds of a hypertonic salt solution with sodium citrate to encourage drainage.

(4). The use of autogenous vaccins.

(5). The administration of citric acid in order to lower the coagulability of the blood so that lymph containing antibodies can more freely reach the infected area.

(6). Ligation of the facial vein has also been suggested. In none of the cases reported, however, has this been done. If it is resorted to it seems logical to excise that portion of the anterior facial vein of which the superior labial is a branch, as there is danger of the thrombophlebitic process extending down as well as up. The excision can be done through a 3/4 inch incision. This incision parallels the sulcus nasolabialis and about one-half inch above it; the lower end of the incision being on a level with the anterior nares. The superior labial branch can be found about the middle of this incision; the facial vein is found beneath a considerable layer of fat and the levator labii alæque nasi.

In conclusion I wish again to lay emphasis on the serious nature of carbuncle of the upper lip, and to urge the earliest possible surgical intervention in all cases of upper lip infection.

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THE LINGUAL TONSIL—A FREQUENTLY OVERLOOKED STRUCTURE.*

By J. BROWN LAROSE, M. D., New Orleans.

The brevity of description of the pathology and symptomatology of the lingual tonsil in many text books and the fact that it is not readily seen in the usual method of examination of the throat probably accounts for the scant attention generally paid this gland.

The lingual tonsil is a lymphoid body situated on the posterior surface, or base of the tongue, extending from the cimcumvallate papillae to the epiglottis. It is covered by the lingual mucous membrane and divided in the median line by the glosso epiglottic ligament. Its surface presents numerous nodules with depressed pits or craters, each pit representing the orifice of duct of a mucous gland; a connective tissue stroma binds these nodules together. The nerve supply arises from the posterior lingual, a branch of the glossopharyngeal.

The arterial blood springs from the lingual artery, accompanied by veins which with adjacent veins form a plexus in this region. The lymphatic circulation is especially abundant and empties into the submaxillary and deep cervical lymph glands.

The lingual tonsil, sharing as it does the lymphoid structure of the faucial and pharyngeal tonsil, reaches its greatest development in young children, but unlike the other tissues of this lymphoid ring it has less of a tendency to atrophy about the age of puberty, and frequently persists and enlarges with middle adult life. Its function, apart from that attributed to the lymphoid tissue in this zone is not definitely understood.

A proper method of examination is essential for a diagnosis of the diseases of this structure. The use of the tongue depressor, with correct illumination, while sufficient for a view of the fauces is totally inadequate for a full inspection of the lingual tonsil. The employment of a laryngeal mirror, slightly warmed resting against the soft palate and rotated laterally with projected light from a head mirror, while the patient grasps the tongue with a bit of gauze or a towel and inclines the head slightly backward will expose a complete view of the entire tonsil. The procedure is simple, the technic easily acquired and its inclusion in ordinary

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throat examination will amply repay the practitioner for his thoroughness by disclosing in many cases the seat of trouble in the patient's history, and clear cut indications for treatment.

The diseases of this tonsil though common in frequency are not numerous in number. It is rarely the seat of neoplasm and primary inflammations are not the rule. Inflammatory conditions are usually secondary to involvement of the adjacent faucial and pharyngeal structures. They often persist after evidences of the provoking cause have disappeared, hence the value of inspection, especially in delayed relief of symptoms in throat affections. Foreign bodies, such as fish bone, readily find lodgement in the soft nodular projections and their removal with forceps directed by its image in a laryngeal mirror is not a difficult matter. Acute catarrhal inflammation of the lingual tonsil, usually a secondary condition as just stated, not infrequently is overlooked. Whereas topical applications directed to the evident pharyngitis, gargles, sprays and systematic treatment are prone to assist the lingual tonsillitis, it sometimes happens that this relief does not follow, to the disappointment of the attending physician, who, overlooking this region, sees no objective evidences of the former inflammation. He is then unable to account for the persistent cough, especially worse at night, and vague morbid sensations located deeply in the throat, as described by the distressed patient. The lingual tonsillitis is now in a subacute stage and its recognition and treatment at this time would almost invariably cause a cessation of the cough and sensory disturbances and incidentally the abandonment of a host of sedative and expectorant cough mixtures that have been vainly tried in an attempt to obtain relief.

A topical application of silver nitrate ranging in strength from 25 per cent to 5 per cent, or stronger, depending on its chronicity, would cause the swollen tonsil to rapidly shrink and the symptoms to disappear. A curved applicator, wrapped at its tip with a bit of cotton, impregnated with the silver solution, guided by the throat mirror, is a convenient method of making these treatments. Care should be taken to squeeze the excess of fluid from the cotton to avoid dripping of the solution upon the epiglottis, or more serious still into the larynx.

This pathologic entity must be differentiated from a subacute laryngitis and tracheitis. Inspection shows no inflammatory signs

in the larynx, the chords especially appearing normally white; there is also an absence of hoarseness and the more or less typical sound of a laryngeal cough. The secretion is these latter conditions is usually more copious and expelled after a fit of coughing, which the patient recognizes as being brought up from a region lower than the base of the tongue.

Follicular and lacunar infections of the lingual tonsil likewise respond to this form of treatment. As in other lymphoid organs neglected acute processes often merge gradually in the chronic form. The principal chronic affections of this tonsil are varix and hypertrophy. Their symptoms are very similar and may be described together. These chronic conditions are rare in children, occuring usually between the age of twenty and forty years. The symptoms are a tickling or pricking sensation in the faucial region which provokes a spell of coughing or the desire to clear the throat. Pain is frequent and the patient indicates its seat by grasping the anterior surface of the neck above the thyroid bone. The pain is often relieved by the ingestion of food or liquid. The sensation of a foreign body is often experienced and this with the annoying cough induces the patient to seek his physician for relief. The use of the voice is often followed by a sense of dryness and constriction of the throat; singing is especially hampered and restricted by this symptom.

In lingual tonsil varix inspection discloses the gland traversed by enlarged blue veins more or less tortuous. Bleeding occasionally occurs due to a rupture of these veins. This localized variety may be unassociated with varicose veins elsewhere in body. When markedly developed and with pronounced symptoms, a few of the veins may be destroyed by the actual cautery brought to a cherry-red heat; the destruction is best secured in successive stages allowing a few days' interval. The post-operation dysphagia and pain are thus minimized.

The treatment of the simple chronic hypertrophic tonsil may consist of the reduction of its size by long continued applications of silver nitrate; failing in this the use of the cautery, or excision of small portions at a sitting with curved scissors will attain the desired end quickly. A special tonsillotome has been devised for this purpose. These operative procedures may be painlessly performed by the preliminary application of 10 per cent or 20 per cent cocain solution.

In adults a hypertrophied lingual tonsil may encroach its lateral enlargement well up in the faucial tonsillar fossa after a complete tonsillectomy. The improper interpretation of this occurence sometimes is the basis of criticism of a faucial tonsillectomy which has been completely performed.

A markedly hypertrophied lingual tonsil is sometimes found in leukemia, which of course calls for a blood picture and proper systemic treatment. In these hypertrophic states attention should be directed to the eliminative organs, especially the intestinal tract.

In conclusion the suggestion is offered that the region of the lingual tonsil be included in the routine throat examination by the general practitioner. Its inspection will indicate the etiologic factor in many cases of acute and chronic cough and various sensory disturbances attributed to the oro-pharynx. The recognition of the pathologic states described, followed by proper remedial measures will be conducive to the alleviation of much unnecessary suffering and anxiety.

HEMATEMESIS AND MELENA DUE TO LATENT ANEURYSM OF THE AORTA.*

By ISAAC IVAN LEMANN, M. D., New Orleans.

The cases I wish to relate present, it has seemed to me, features sufficiently out of the ordinary to warrant their recordation. Whether I have been justified in the title of this paper may be a matter of some debate. A discussion of the proper interpretation of the clinical facts shall be the burden of my remarks.

Case I. Mrs. X., aged 63, has been under my observation for four or five years. Her complaints have been rather indefinite, chiefly constipation, nocturnal polyuria and occasionally an attack of diarrhea without pain. There has been also slight epigastric distress and flatulence. In 1899 she was operated for gallstones following numerous attacks of violent gall-bladder colic during a number of years. Since the operation she has had no recurrence of pain, nor has she had any jaundice. For many years prior to the menopause she had diarrhea, but since the menopause (at 48) the bowels have been constipated. She had whooping cough and measles in childhood and typhoid as a young girl. Ovarian trouble began shortly after she was married and continued until she was

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38. She has had seven children (of whom only two are living) and numerous miscarriages. Her family history is interesting. Her father, who is said to have had gallstones, died at 63, after vomiting coffee-ground material. Her mother died of asthma and dropsy. There were only two brothers; one died in infancy, the other of locomotor ataxia. Two sisters are living and well; one died in childhood of heart trouble. The patient's husband had chronic interstitial nephritis, chronic bronchitis and bronchial asthma. He died at 70. The patient is an obese woman, of pasty complexion and rather thick, dry skin. Physical examination has shown, since I have known her, a moderately enlarged heart with an accentuated aortic second sound. The systolic blood pressure has usually been in the neighborhood of 160 to 180. The lungs are normal. The liver has not been palpable, and has been apparently normal in size upon percussion. The urine has been of low specific gravity, abundant, with occasionally a little albumen and a few hyaline casts. The phenolsulphonephthalein output was forty-five for two hours several years ago. This patient, then, was regarded as having a chronic interstitial nephritis, with moderate hypertension. Her slight attacks of diarrhea had been regarded as eliminative in character. Last June (1916), while she was away from New Orleans, she suddenly one morning felt weak, dizzy, and had a desire to go to stool. The stool was black and accompanied by pain in the abdomen, and was followed shortly by another stool, which was jet-black. After the second stool she vomited copiously very black material. Following this she fainted. That afternoon she took a bottle of citrate of magnesia, and had eighteen stools, all of which were black like tar. She remained in bed, and two days after the onset of the trouble she fainted several times and vomited blood to such an extent that she was entirely soaked in blood. The bowels moved at the same time. After this, the physicians in attendance permitted her to have no stool for over a week, stopped all food by mouth and fed her by rectum. Eighteen days after the beginning of the trouble she made a journey of forty-eight hours and returned to New Orleans. She was slightly pale and a little weak, but in surprisingly good condition after such a terrific experience. The physical examination revealed nothing new. The patient was then brought to the Touro Infirmary, in order that we might have an X-ray gastro-intestinal study made. As a matter of routine, we always fluoroscope the chest prior to giving the barium meal. This routine fluoroscopy revealed, to the intense astonishment of Dr. Samuel and myself, a large aneurysm of the arch of the aorta. Repeated examination since that time, now nine months ago, has not enabled us to make out any signs whatever upon which to make a diagnosis of aneurysm of the aorta. There is no tumor, no thrill, no abnormal dullness, no bruit, no difference of pupils nor of pulses, no tracheal tug, etc. There are no symptoms. The aneurysm is latent and can be made out only by X-ray examination. I may add, in order to complete the record, that the blood examination made at the time of the discovery of the aneurysm showed the following:

Wassermann	Positive
Red blood cells	4,200,000
Hemoglobin	80%
Leucocytes	5,600
Lymphocytes	38%
Neutrophiles	62%

It is remarkable that there should be so little anemia so soon after a tremendous hemorrhage.

Case II. I am able to present, through the courtesy of Dr. C. Jeff Miller, who has kindly furnished me the report: Mrs. Z., aged 52, weight 155 pounds. Her family history is unimportant. She was never seriously ill during childhood, and enjoyed excellent health until ten years ago. She then had performed a supravaginal amputation of the uterus and double salpingo-oophorectomy for fibromyoma of uterus and cysts of the ovaries. After the operation, her health was good. Two years ago she was seized with a vomiting attack while at a theatre and vomited a considerable amount of blood. She remained in bed three or four days under her physician's care and then resumed her duties. No special importance seems to have been paid to the attack by her physician. After the first attack she can recall no digestive disturbances other than occasional attacks of fullness in the stomach and gas distention. The attacks were relieved by soda bicarbonate and regular bowel habits. In February, 1917, she was awakened one night by nausea, and later vomited a large amount of dark material, which an experienced nurse on duty in the house promptly recognized as blood. An hour later she had a large bowel movement, consisting principally of dark blood. It was then she came under the care of Dr. Miller. The nausea persisted for two days, with occasional vomiting spells and several bowel movements, all of which contained blood. Symptoms of acute anemia promptly developed, and arrangements were made for infusion, or transfusion, if demanded. There were no symptoms of pulmonary complications nor cardiac changes noted, although a detailed examination was not made, owing to the necessity of keeping the patient absolutely quiet. A tentative diagnosis of gastric ulcer or carcinoma was made. After ten days of absolute rest, rigid diet restriction and ice-bag applications an X-ray examination was made by Dr. E. C. Samuel at Touro Infirmary. Dr. Samuel reports that fluoroscopy of the chest "shows an aneurysm of the aorta, probably at the ascending or transverse portions. Its greatest diameter measures about 12 c. m. A definite pulsation, with an observation made from the anterior and posterior aspect, and the lateral, shows a considerable bulging forward. There is no esophageal symptom, as the aneurysm is causing no pressure in that direction." The gastro-intestinal X-ray pictures were negative. The patient has recovered from the acute anemia and is apparently in as good health as before the hemorrhage occurred. After the X-ray revealed the true nature of the lesion a further examination of the heart was made and some hypertrophy was found. **No other evidence of the true lesion could be detected** by the physical signs. She recalled, after repeated inquiries, that she had experienced, for about four months, some difficulty in breathing after walking upstairs.

Rupture of aneurysms of the aorta into the esophagus, thus producing hematemesis, is not uncommon. A large percentage of aortic aneurysms rupture somewhere, as I have shown in another paper. Thus, in my series of fifty thoracic aneurysms proven at autopsy, eleven had ruptures, or 22 per cent. Hall has reported forty-one ruptures in a series of ninety-eight cases, or nearly 41 per cent,

and in another series eight ruptures in thirty-five cases, or 23 per cent. Browne reported sixty-four ruptures in 160 cases, or 42 per cent. Of all ruptures, those into the esophagus form a considerable percentage. Thus, in my series of eleven ruptures, three had been into the esophagus, or over 27 per cent. I have collected from the literature 592 cases terminated by ruptures; of these, rupture had been into the esophagus in fifty cases, or 8.4 per cent. But, when rupture occurs into the esophagus, death usually supervenes promptly. In the two cases I have reported, the patients have recovered and are apparently in fairly good health, one of them after nine months. If we are to attribute the hematemesis and melena to the aneurysm, we must assume that there has been an erosion into the esophagus, usually well guarded by the laminated clot of the sac, that this clot has been slightly disturbed for a time, permitting the hemorrhage, and then finally, when the blood current was slowed by the falling blood pressure, a new plug was formed. As I have intimated, at the onset I have not found such an explanation entirely satisfying. We must necessarily question whether the hemorrhage was *due* to the latent aneurysm, and not to some other disease existing in addition to the aneurysm. As regards the probability of a co-existing gastric ulcer or carcinoma, it would, however, seem curious that there has been in both cases so little progress of gastric symptoms. Gastric carcinoma seems out of the question, and gastric ulcer improbable. Another possible co-existing condition is esophageal varix. This occurs quite commonly in cases of cirrhosis of the liver, and there are many cases on record of tremendous gastric hemorrhages due to such esophageal varices. I have seen such a case. There is nothing, however, in either patient to justify a diagnosis of hepatic cirrhosis. One naturally thinks of pressure upon the esophagus by the aneurysmal mass producing varicose veins, and hence of the possibility of the rupture of such veins producing the hemorrhage. In neither patient was there ever any subjective evidence of pressure upon the esophagus, as, for example, difficulty in swallowing. In neither patient did the fluoroscope indicate that the pressure was backward. It is to be remembered, too, that the veins of the lower part of the esophagus drain into the portal system.

With all the evidence before me, I am still inclined to the view that these hemorrhages were due to the latent aneurysms, and not to some co-existing cause. The coincidence would be almost too

great to explain in two cases. And yet I cannot refrain from a final warning against unwarranted assumptions in this particular, for I bear in mind a recent experience which taught a useful lesson. A negro adult was admitted to the Charity Hospital suffering from dyspnea. It was not difficult to diagnosticate an aneurysm of the aorta. He had a distinct, prominent pulsation in the left infra-clavicular space,with retromanubrial dullness continuous with that over the pulsating mass, vertebral dullness extending down to the fourth thoracic vertebra. The whole apex of the left lung was dull down as far as the fourth thoracic vertebra. In addition, there was present a thrill and a bruit. The patient had dysphonia and a hard, brassy, typical cough. The dullness at the left apex was attributed to compression of the lung by the aneurysm—a condition we have often met in previous aneurysm cases. The X-ray confirmed the diagnosis of aneurysm. Suddenly one night the patient had a tremendous hemorrhage from his mouth and died in a few minutes. Naturally his death was attributed to a rupture of the aneurysm. Autopsy showed an intact aneurysmal sac. The hemorrhage had proceeded from a ruptured blood vessel dangling in a small tuberculous cavity the size of a walnut in the apex of the left lung.

Discussion on the Paper of Dr. Lemann.

Dr. Sidney K. Simon, New Orleans: Dr. Lemann's presentation of these two cases opens up a field for thought and contemplation. I did not have the advantage of reading the doctor's paper before its presentation, and only heard it for the first time as I sat there.

The first case he presented brought to my mind very distinctly a lady I have had under my observation for some years who presented some very interesting features, very closely simulating the first case Dr. Lemann presented. This woman had a severe hemorrhage from the stomach, was vomiting large quantities of blood and pus, and had melenous stools for a period of a week following hemorrhage, with, of course, tremendous shock from the immense loss of blood that occurred at the time of the hemorrhage ten days previous. She recovered promptly under a simple, ordinary treatment of rest and restricted diet, having been treated at that time by a local physician for ulcer of the stomach. She never presented any symptoms on part of the stomach before or since. About three years ago she moved to the City of New Orleans. Some two months ago she suddenly developed a hemorrhage, a bladder hemorrhage, as she began passing blood. I had her under observation for a slight rectal trouble. I called in my confrère, Dr. Nelken, to investigate that particular feature of her case. We took X-ray pictures of the kidneys. He made most elaborate examinations of the bladder with the cystoscope and could not find any cause for the

hemorrhage. In spite of that, she persisted in having hemorrhages from the urine on several occasions, until one day, about three weeks after the first blood appeared in the urine without warning, she had another severe hemorrhage from the stomach, vomiting enormous quantities of blood. I got there quickly and I found her still vomiting blood, about half an hour having elapsed, and I believed she was going to die. Much to my surprise and delight, she recovered completely in the course of the day. She had absolutely no symptom or pain, except she was weak and passed blood through the bowel.

I had percussed the heart with reference to the possibility of aneurysm in her case and made a most careful observation. There is positively no sign or symptom, in her case, of aneurysm, yet, in view of what Dr. Lemann has said, my mind has been open, and I shall have an X-ray taken of her thorax and of her kidney region. We had no suspicion of aneurysm at that time, and did not consider her thorax. I have considered the possibility of aneurysm that represented a condition of advanced arteriosclerosis of the abdominal vessels, and particularly those vessels leading to the kidney and stomach, in her case. She has a high blood pressure. She has a systolic blood pressure of 190 to 200. This came down considerably following hemorrhage and again went back to a high standing. She has palpable, sclerosed arteries, as elicited by inspection. The Wassermann reaction was negative. That is the only explanation I can give as to the possibility of arteriosclerosis with rupture or so-called gastric apoplexy. That is reasonable and possible, and may be the cause of the hemorrhage in the two cases Dr. Lemann has reported, because we find those conditions co-existing in cases of aneurysm and advanced arteriosclerosis.

I want to take occasion to say that, because we know of the possibility of aneurysm in a latent form, it is a constant sword hanging over my head in using the stomach tube as frequently as I do. I have that constantly in mind, and I make every endeavor, before I pass a stomach tube on a case, to thump the chest and auscultate the cardiac region and the pulmonary region, to be sure that I am not running into some latent, hidden possible source of hemorrhage which might be brought to the surface with the straining and rising blood pressure which invariably accompanies the introduction of the stomach tube.

Dr. Lemann (closing): I think the suggestion that Dr. Simon has made is a very plausible one. In fact, I am sure the man who had my first patient in charge at the time of hemorrhage had that in mind—namely, that the gastric hemorrhage was due to gastric apoplexy.

The only question which I wish to bring up is whether the hemorrhage was due to the aneurysm or due to some cause which had a common etiology with the aneurysm, or some cause which was independent of the aneurysm.

I can quite sympathize with the second point Dr. Simon has made—namely, the fear of running into trouble in passing a stomach tube. I have almost reached the point where I prefer to fluoroscope the chest before passing the stomach tube. In private practice I have come almost to the point where I would rather do gastro-intestinal X-ray study first.

We do not realize the frequency of aneurysms of the aorta. In a paper published in the "American Journal of Medical Sciences" last year, I showed that in 2,000 routine autopsies conducted at the Charity Hospital one patient out of thirty was found to have an aneurysm of

the aorta. That is something stupendous. My experience is not isolated. Osler gives practically the same figures from the Johns Hopkins Hospital in his article in "Modern Medicine"—that is, one autopsy out of thirty showed aneurysm of the aorta. In 15,000 cases coming to the Touro Medical Clinic, taking them as they came, Dr. Eshleman and I were able to diagnose three aneurysms in 1,000 cases. In other words, the autopsies showed aneurysms in 3 per cent and the 15,000 clinic cases showed aneurysms in one-third of 1 per cent. These cases were recognized; how many more were overlooked we do not know. That gives you an idea of the frequency of aneurysm of the aorta.

I do not take any great credit to myself in being particularly keen in making the diagnosis. It is my belief that if we have our eyes open and look for them we will find them. Osler has said that there is no disease which makes so much for clinical humility as aneurysm of the aorta.

ARE MOVING PICTURES INJURIOUS TO THE EYES?*

By C. A. BAHN, M. D., New Orleans.

It is estimated that there are fifteen thousand moving picture theatres in this country, with a daily attendance of ten million.[1] The small cost, short duration, constant performance, mental and physical relaxation, interesting and instructive portrayal of science, comedy, tragedy, romance, history and morality make the movie our national amusement.

The ready adaptability of the moving picture may be appreciated when we consider its application to the field of botany and zoology for the study of plant and animal life; to physiology, in the functional studies of the various organs; to surgery, in the study of operative technic; to medicine, in observing the changes in disease; to efficiency, in the elimination of unnecessary motions; to history, in the portrayal of important events for future reference; to salesmanship, in pictorial description.

The photograph of a moving object taken and displayed before the eye at the rate of about sixteen per second is interpreted as having continuous motion. The sight mechanism requires about one-twelfth of a second to record a distinct mental picture of a moving object. Faster impressions are merged into continuous motion. For continuous and natural motion, pictures must be photographed and projected at exactly the same rate. Faster projection gives the jerky, automaton motion; slower, the uncanny, walking-on-air appearance.

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The source of illumination used in projection is a limelight or an arc, usually of about two thousand candle-power, focussed on the distant screen by a reflector and a series of lenses. Interposed is the celluloid or composition film, which ranges from about five hundred to twelve thousand feet long, and has photographed on it, by the primary negative, the series of pictures, each three-fourths of an inch by one inch. By means of perforations on both sides, sprockets, pressure rollers and other mechanism, the film is drawn downward over the lens aperture at the proper uniform rate. Each individual picture is absolutely still while being projected. Then, during an interval of about one-one-hundredth of a second, by means of the rotary shutter or electric cut-out, the light is shut off from the screen, while the next picture is being drawn before the lens aperture. Even the slightest interval in which light passes through the aperture, without a film picture interposed, causes flickering. Flickering, white balls or star lines, etc., are due to defective mechanism or film. They greatly increase ocular fatigue and are harmful and unnecessary. By means of the lens system the film picture is magnified about ninety-five thousand[2] times on the screen. The slightest imperfection of film or mechanism is correspondingly magnified.

How are moving pictures seen and interpreted? Visible light is produced in the human eye by ether waves, varying from approximately one-thre-hundred-thousandths to one-six-hundred-thousandths inches long,[3] and frequently, from twenty million of million to four hundred million of million per second.[4] Objects are focused by the dioptric apparatus on the retina, inverted. Here, neuro-chemical changes transform light rays into specific nerve stimuli. These are carried along the optic nerves, either directly or in relays, to the primary or lower visual cortex in the occipital lobe. This represents the simplest visual concept. This concept becomes more complete and complicated by association with the higher visual and sensory areas.

A certain proportion of the bodily nervous energy is required by the sight mechanism to functionate properly. Any defect of the sight or moving picture mechanism increases this eye load, and therefore the relative proportion of eye energy necessary to main-

1. Bishop. Good and Bad Effects of Moving Pictures on the Eye. *Medical Times* N. Y., Vol. 43, 1915, p. 231.
2. Hart. Ocular Disturbances Caused by the Cinematograph. *California State Journal of Medicine*, August, 1912.
3. Ray. No Organic Change Caused by Moving Pictures. *Ibid.*, p. 230.
4. Standard Encyclopedia.

tain distinct comfortable sight. Either the sight acuteness, endurance and comfort can be maintained under these adverse conditions or not. If not, unpleasant symptoms result, which can be attributed, in the functionally perfect sight mechanism, to fatigue or its accompanying vascular changes.

Among the symptoms which have been attributed to moving pictures are:

1. Redness of conjunctiva and lid.
2. Lacrimation.
3. Fatigue: Muscular, retinal and ciliary.
4. Pain of varying intensity in and about the eyes, including itching and burning.
5. Headache.
6. Dizziness.
7. Blind-spots.
8. Electric Ophthalmia: Redness and swelling of lids and conjunctiva from exposure to intense illumination. It is occasionally seen in moving picture operators and actors, and subsides in a few days.

The effect of the moving picture on the eye depends upon two things:

1. The moving picture.
2. The eye.

Among the moving picture factors which influence the effects on the eyes are:

1. Film: Speed and character of motion portrayed, distinctness, color values, actual colors, contrast, focus, condition.
2. Projection: Mechanism, lens focus, intensity and variation of speed, illumination, regularity, and condition of lenses.
3. Screen: Reflection, distortion caused by angle formed by line of projection with observer's line of sight, size of picture and character of action portrayed.
4. General Conditions: Ventilation, general illumination, comfort and other entertainment.

The eye factors involved are:

1. Sight Mechanism: Keenness of sight, energy required to maintain maximum sight and endurance, binocular fixation, and interpretation of pictures.
2. Position of person in theatre: Pictures are least tiring when viewed from thirty to one hundred feet from the screen. Distortion is increased with the angle formed by the line of projection and the line of the observer's sight.

3. Method of viewing pictures: Any person can tire the eyes unduly by riveting the eyes and attention on one object on the screen for even three minutes. For minimum fatigue, one should view the picture as a whole with eyes relaxed as much as posisble, and should either close the eyes or look at something besides the screen every few minutes. Persons with very sensitive eyes may require light-colored glasses because of the great illumination and sharp contrast. Musical or other varieties of entertainment rest the mind and eye, sometimes.
4. Mental effect: Generally speaking, moving pictures are more or less restful. The looking upward, slight illumination, and restful comfort tend to make one sleepy.
5. Decreased winking.
6. Personal equation.

With the vast majority who complain of unpleasant symptoms following moving pictures, under favorable conditions, the eye is more often at fault than the picture. Refractive errors, muscle imbalance, defect of vision or fixation, or disease, increase the difficulty in maintaining a maximum distinctness, endurance and comfort. The moving picture is, under favorable conditions, a slight sight test, and often attracts attention to preëxisting ocular defects. If the eyes cannot stand the test, unpleasant symptoms result. A person with normal eyes should be able to view at least four sittings of moving pictures, properly presented, per week, with no discomfort or ill-effects.

Many pictures are not presented under the most favorable conditions. Indistinct, worn or scratched films, objectionable screens, poor projection, variable, too bright or dim illumination, and inexperienced operators produce pictures which will cause unpleasant or even injurious effects in any eye, normal or abnormal. Any or all of the above causes greatly increase the ocular fatigue and cause unpleasant symptoms.

Nearly all of the objectionable features of the moving picture have been removed in the highest class theatres. The seats are comfortable; the indirect illumination is sufficient to be restful and still not make the pictures in too great contrast; the nearest seat is more than twenty feet from the screen; the line of the observer's sight is practically the same as the line of projection of the pictures; a proper temperature is maintained; forced ventilation is used; mechanical defects are eliminated from the projector; only perfect films are used; the screen has no unpleasant reflexes; the pictures

are projected at a proper and uniform speed; intervals are given between the pictures, in which no pictures are shown, and in which other entertainment, such as music or vaudeville, is offered, and there are no oblique seats in the house.

Conclusions.

1. Moving pictures under favorable conditions do not cause as much fatigue as the same period of concentrated reading.

2. Under unfavorable conditions, moving pictures cause increased fatigue which, if continued, produces symptoms that are unpleasant and may be harmful.

3. Most persons who complain that moving pictures cause ocular discomfort have some ocular defect.

4. Moving pictures, under favorable conditions, act as a slight test of distant eye endurance. A person with no defect of the sight mechanism should be able to enjoy at least four sittings of one and a half hours each per week with no discomfort.

5. By staring fixedly at one object on the picture for a prolonged time, fatigue is greatly increased and unpleasant symptoms are produced. A person should not stare at any one object, but should try to look at different parts of the screen, and should either close the eyes or look about the theatre for a few seconds about every five minutes.

6. Every person has an individual standard of eye endurance. When your eyes become fatigued in a picture theatre, leave.

7. A review of the literature to date records no permanent harm to the eyes from moving pictures. The fact that ten million persons enjoy moving pictures daily with no definite reports of specific harm or injurious effect, and with but few complaints of slight inconvenience, proves that moving pictures, as presented at the average theatre, can have no injurious effect upon the eyes.

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A CONTRIBUTION TO THE TREATMENT OF PELLAGRA.*

By ARTHUR A. HEROLD, M. D., Shreveport, La.

The modest title of this paper is prompted by the fact that the writer could not justly lay claim to having discovered a specific, when he has but five cases to report, treated by his original method. But the results have been so striking and the improvement so rapid that, I feel, to fail to give publicity to the treatment, so that others may profit thereby, and thus, perhaps, aid some unfortunate victims of this dread malady, would be a dereliction of duty on my part.

I feel that whenever we can replace an empirical treatment by one sound in theory and successful in practice we should not hesitate to do so; especially should this be the case when the empirical treatment is often overdone and thereby causes harm, comparable, in its evil effects, only with the disease itself. I am referring now, of course, to the medicinal treatment of pellagra with the arsenicals. Why, I have seen several cases of improving pellagrins get *rapidly* better of their troublesome symptoms when I had them to do nothing more than omit their Fowler's solution or cacodylate of sodium. I know that I am treading on sacred ground, especially if I condemn salvarsan, but my results in the cases (all severe) in which I have used this drug, showing, as they do, a mortality of 100 per cent, I cannot refrain, with all due respect, from placing it also in the junk-heap of would-be "specifics for pellagra."

In the summer of 1916 I had a case of three years' duration which, for the first time, showed very troublesome symptoms, resembling an acute case, with the addition of the evidences of postero-lateral sclerosis of the cord. She would not nor could not eat the right food; arsenicals had been thoroughly tried and found wanting; she was getting weaker, and delirium had set in. I was in a quandary as to what to do. I realized that I had to supply her quickly with something that she lacked and which past experience, as well as the teachings of Goldberger and others, had convinced me must be in certain foods. It occurred to me that, whether this be the so-called vitamins of Funk or simply albumens or nitrogenous substances, it must be in unheated blood serum; and why could not the good results obtained in transfusion be due simply to this substance transferred? Furthermore, we know, from the investigations of Dyer, Bass and others, that the coagula-

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bility of the blood is lowered in pellagra; hence, blood serum certainly would *not* be contra-indicated, and might do much good along this line. Accordingly, with everything to gain and nothing to lose, I decided to administer normal horse serum intravenously. After two treatments the improvement was so marked that I gave her a third dose—all at two-day intervals. She improved in every way except for the central nervous lesion, and although this patient eventually died, her death being due, in part at least, I am sure, to the failure of the family to follow my dietary instructions, as I afterwards learned, still the temporary improvement was so marked that I decided to give the method a further trial. I have since used it on four cases, of which I shall give you a brief synopsis.

As far as I can learn from the literature, this mode of treating pellagra has never been advocated before. I claim for it only that it does in a few days what proper feeding takes weeks to do, and that it will tide over and markedly improve that very troublesome class of patients whose mouths are in such condition that feeding is almost, if not quite, impossible. My routine treatment now is to use a well-known firm's preparation of horse serum, chemically preserved, ready for use, supplemented with a lime salt, which not only aids in increasing the coagulability of the blood, but also tends to keep down the anaphylactic phenomena. We should always keep in mind the possibility of serum sickness, but I believe there is a tendency to exaggerate this danger. I have seen it, mildly, in one of my cases.

Case 2. M. D. came to my office June 19, 1916, with a classical, though mild case of pellagra of about six weeks' duration. Her local physician had been giving arsenicals and had advised her as to diet, but her condition remained about stationary. I administered 10 c. c. normal horse serum intravenously at once; she returned in two days for a second dose, apparently improved; this was given, followed by lime salts. The necessity of proper diet was then emphasized by me. Her husband came in on July 6 (to pay the bill), reported her as "all right," promising to notify me of any recurrence. To date I have not heard further from them.

Case 3. D. G. Called July 1, 1916. Patient in bed, with two-months'-old baby; been sick for two weeks. Marked case, with fever, stomatitis, diarrhea, skin lesions. Advised her as to diet and prescribed arsenic and quinin. Called back on July 5; found patient weaker, not able to chew and not getting or retaining sufficient liquids of right kind to do good. Ordered calcium chloride, grs. x, every four hours; administered normal horse serum, 10 c. c., intravenously, July 6, and again on July 8. Effects were marvelous. Did not see her again until July 16, when, contrary to my advice, she was sitting in the sun and "feeling fine." Shortly thereafter she went to work and has had no recurrence to date. She was carefully instructed as to diet.

Case 4. Mrs. C. M. H. was admitted to North Louisiana Sanitarium, February 6, 1917, with a history of having been "going down" in health for the past two years—emaciation, loss of appetite, etc., but with pellagrous symptoms of less than three months' duration. She had received some hypodermics of cacodylate of soda, and attempts had been made to feed her along proper lines, but she had grown progressively worse. When I was called in, on February 9, she was in a muttering delirium, with subsultus tendinum, incontinence of urine and feces, with probably thirty bowel movements per day; her hands, feet and genitalia were ulcerated, the fingers so much so as to give one the idea that some of the phalanges were about to "rot off." Her tongue, gums and lips were like rare beef, and very ropy saliva was constantly dripping from her mouth, so that feeding, even with small quantities of liquids, was next to impossible. On February 9, 10 c. c. normal horse serum was administered intravenously; repeated on the 11th; on the 13th, 20 c. c. calcium lactate, grs. v, stirred in water, was given every three hours at first; later, every six hours. She was so much better twenty-four hours after the second dose that semi-solid food and plenty of liquids could be given freely. Treatment was later fortified with Blaud's iron and, when bowels checked (so much so that we had to give laxatives), strychnia was added. On March 4, or just a little over three weeks from the time that the serum treatment was begun, she was apparently entirely well and was told that she could go to her home in the country whenever any of her people should come for her, provided she lived on the right kind of food—which she had not done before. Last report from her, about one month later, was to the effect that she continued all right.

Case 5. L. J. consulted me in March, 1917, about her hands and mouth. Gave a history of a previous attack of pellagra; had been taking hypodermic treatment this year, without much, if any, improvement. As her case was mild and she lived in the country, I put her on Blaud's iron and lime salts, cautioned her about diet and told her to return when she could stay a while in the city. She returned improved in all respects except the skin lesions. I gave her two treatments of horse serum, 10 c. c. each, on April 4 and 6. I last saw her on the 13th, when she was all right, except for a mild urticuria on the face.

CONCLUSIONS.

1. If my experience is any criterion, practically all cases of pellagra will improve on normal horse serum administered judiciously, intravenously.

2. I believe that we would be justified in giving a good prognosis in all cases thus treated, except those that have well-developed lesions of central nervous system.

3. For reasons given above, it is advisable to fortify this treatment with a lime salt.

4. We should be mindful of the possibility of anaphylactic phenomena, but this probability is slight, and we can minimize the evils of serum sickness with proper medication.

Finally and in conclusion, let me stress the point that I do not believe that there is any specific medication for pellagra; that the good accomplished by medicines is simply from the tonic effect or as a result of combatting some intercurrent disease; that the procedure here advocated by me is nothing more or less than supplying the system safely, quickly and easily, in a few days, what it so badly needs—accomplishing a short cut, as it were—what proper feeding would do in a longer period of time, thereby conserving the patient's strength and considerably curtailing the morbidity.

(Author's Note.—August 8, 1917. Reports during past thirty days from four cases reported cured above are to the effect that all have remained well. Two other cases, treated along same lines, are doing nicely.—A. A. H.)

Discussion on the Paper of Dr. Herold.

Dr. D. W. Kelly, Winnfield: The giving of horse serum is something new. I have noticed, in the series of five cases he reports, he records one death—a mortality of about 20 per cent. I would not think that, to begin with, was very flattering in regard to results. It is my opinion that you can take the worst case of pellagra and, under sanitarium treatment, if you put him in a cold bath and feed him, he will improve. I do not believe 20 per cent will die if you give them sanitarium treatment under ordinary conditions, and nothing else. I do not believe the death rate from pellagra is that high. I, for one, believe, that we can get results from medical treatment in cases of pellagra. I believe we get results from the use of arsenic, but the arsenical treatment has been overdone. Since I have been here, one of my friends told me that he gives these patients salvarsan, and said he killed some of them. I asked him how much he gave, but he did not tell me exactly. In speaking of giving cacodylate of sodum, he said he gave 7½ to 15 grains as the initial dose. I am not surprised that pellagrans died when they got that size dose of arsenic. Arsenic has killed pellagrins, and, considering the way it has been given, I think the medical profession would do better to go back to the Goldberger method and do nothing but feed them, rather than give them poisonous doses of arsenic. If you give it with the needle, you get results. I believe in the arsenical treatment of pellagra, and the proof of the pudding is in the eating. I have not lost a case of pellagra in over eighteen months. I certainly believe in the arsenical treatment of the disease, and for the last two years, in addition to arsenic, I have been using hydrobromate of quinin with good results. I have patients who are doing well under the treatment. There is absolutely no question as to the results obtained from arsenic and hydrobromate of quinin. I believe in diet. I believe in feeding these patients everything. If we knew more about dietetics we would give all our patients less dope.

Dr. H. W. Jarrell, Mansfield: I would like to ask the members of the Society what proportion of cases of pellagra we are having now as compared with two years ago?

About two years ago we had a meeting in Shreveport to discuss and thresh out the subject of pellagra. The subject was discussed pro and con. Dr. Goldberger's theory was jumped on, and various theories were advanced as to the treatment of this disease. At that meeting Dr. Morgan, of Keitchie, stated that in that year, or the year before, he had had 300 cases of pellagra. That same year (1915) I had about forty or fifty cases of the disease. Last year I had about five.

As to the treatment of pellagra, my course of treatment was largely that which has been suggested by Dr. Kelly—that is, following up the treatment of Dr. Dyer, and also using Goldberger's treatment of dieting the pellagrin. I found that my cases improved greatly on a course of treatment like that.

In view of the fact that a great many practitioners have adopted Goldberger's treatment by diet, and my experience having shown so many less cases in the past eighteen months, I would like to ask some one to tell me what they think about Goldberger's theory as compared with two years ago. Personally, at that time I never had any idea; I thought he knew what he was talking about; that it was the course to pursue, and I pursued it. My patients, or the majority of them, except the extremely advanced ones, got well from that line of treatment, and I made statements to my friends in Mansfield to the that effect. It was in 1915 we had so many cases of pellagra, about 95 per cent of my cases being negroes. The second year of the war they ate but little except black molasses and sour corn bread of sour meal. We had hundreds of cases. I remarked that I did not know anything about the real cause of pellagra, but I said, "If you watch next year you are not going to see so many of the cases of this disease." In 1915 every one had an abundance of something to eat. Last year, as I have said, I had five or six cases of the disease come to my office. The year before I had from twenty-five to fifty. I believe the decrease in the number of cases is due to the course of treatment by diet. I have especially stressed diet to all of my patients and their families, and I think this has been done by all earnest and enthusiastic physicians, the lay press and periodicals.

Dr. Herold (closing): I purposely asked my friend, Dr. Kelly, to open this discussion, because I expected to get a roasting, and I knew he would prefer the arsenical treatment, especially salvarsan.

I wish to refer to the case of the woman who died after being filled with arsenicals. She got into such bad shape that her central nervous system was involved, and, although she improved for a while on other treatment, she did not get well.

As to Dr. Jarrell's question, we all agree that, with the education of the people along dietetic lines and in the last two years having had pretty fair food crops, pellagra has markedly decreased, verifying the opinion, to some extent, of the public health service.

THE FREQUENCY AND EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS IN CHILDHOOD.*

By JOHN SIGNORELLI, M. D., New Orleans.

Tuberculosis, probably the most widespread of all diseases which afflict the human race, respects no sex or age in the selection of its victim, and its universatility is as flaring in early life as it is at any other period. Indeed, scientific research and investigation have long since proven that, whether we accept the hereditary theory of Baumgarten or we admit the aërogenic or enterogenic theory of infection, the fact remains patent that it is not only an infection, but a real disease of childhood. Evidence in this matter, collected independently by various observers, is of a striking nature. Autopsy findings disclose a rise in frequency of from 15 per cent in the first year to 70 per cent in the twelfth.

The disease is as general in its distribution of lesions in the human organism as it is widespread throughout the human family. no organ or tissue is immune to its attacks, and each presents a picture independent of the other.

Up to within the last decade the subject of tuberculosis in children, especially in text-books, was generally dismissed with a hurried explanation that the diseases in this period of life was limited chiefly to bones, joints, lymph nodes, and seldom, if ever, was it met as a pulmonary condition. But the advances made in pediatrics in recent years have taught us to turn to the view that the respiratory tract is principally affected. Hamburger, Harbitz, Holt, Dobbie and Wollstein and Bartlett have independently and at different periods reported conclusions based on autopsy study of several hundred cases of tuberculosis in children, which have shown that the lungs and bronchial glands are far more often involved than any other tissue. Thus, quoting the above authors, we learn "that the lungs are the organs most often affected, next are the bronchial lymph nodes, spleen, pleura, kidney, brain, intestine and mesenteric nodes. The lungs and bronchial nodes are the most frequent seat of disease in early infancy, and death, as a result of pulmonary processes, occurs most often in the first two years of life."

Accepting, then, the results published by these men, it is astounding to see how seldom pulmonary tubercular lesions in

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children are diagnosticated in the clinics as well as in private work, and more especially is it strange as to how rarely one sees a certificate of death bearing such a diagnosis. And, indeed, it is upon this point that the writer wishes to make an appeal, in the hope that we become more awakened to the possibility of its existence, and by its early recognition save not only our embarrassment in the later development of an advanced case of pulmonary tuberculosis, but, by the institution of proper management, save probably the victim's life and certainly, by proper prophylactic measures, prevent a further spread of the disease to other members of the family and the community.

While a discussion of the various clinical and pathological picture of tubercular infections in childhood would be instructive as well as fascinating, the time allotted and the title of this paper preclude any such wide discussion, and the writer shall, therefore, limit himself to a strict discussion of the pulmonary type. These, in order to facilitate their comprehension, will be classified into three groups, after the plan of Dr. W. J. Dobbie, whose experience is wide and conclusive, namely:

(a) Acute miliary tuberculosis.
(b) Acute caseous tuberculosis.
(c) Chronic fibro-caseous tuberculosis.

The first type, while most usually generalized, frequently presents cases in which the disease is confined almost entirely to the lungs, and is responsible for about 10 per cent of deaths caused by tuberculosis in children, affecting, most often, young infants, and presenting a sudden onset and rapid course.

The second type, or acute caseous tuberculosis, is the commonest form of pulmonary tuberculosis in childhod, occurring as a sequel to measles, whooping-cough, broncho-pneumonia or any of the infectious diseases. Its onset is sometimes sudden, but more often it is gradual, with anorexia, *malaise* and wasting quite out of proportion to the primary condition. The temperature continues above normal, and the cough, instead of diminishing, assumes a violent, distressing character, with a rather copious expectoration, in which the tubercle bacillus cannot be demonstrated. As most of the sputum is not expectorated, but swallowed, these little patients suffer from a concomitant gastritis, or gastro-enteritis, with vomiting and loose bowels.

The importance of early diagnosis in this type of disease is at

once obvious, for even then the prognosis, especially in the younger children, is extremely grave.

The third or chronic type of pulmonary lesion in children is not found under the fourth year of life, and rarely before the sixth. The clinical course and physical signs are similar to those found in the adult, and, with the usual tests and a careful examination, diagnosis is not difficult, if one bears in mind the differentiation of other causes of cough.

Diagnosis.—Clinically, the diagnosis of pulmonary tuberculosis in children is always a matter of considerable difficulty; to the inexperienced, the beginning resembles mostly the picture so frequently accompanying other acute infections. This is due to the fact that the disease in its acute form is always either a tuberculous broncho-pneumonia or a part of a generalized infection, in both of which the severity and rapidity of its course are such as to throw the physician off the correct trail, unless he be ever on the alert for its possible occurrence. One should always be suspicious in every case which clinically runs a course not especially indicative of a known condition, remembering the danger of lightly passing over these cases, with a diagnosis simply sufficient to satisfy the anxious parents.

The family history, previous history, with special reference to the mode of alimentation in early infancy, and the environments must be scrupulously investigated.

Frequently these children have little or no cough, but an inexplainable difficulty with respiration, for which no physical sign can be found, ordinarily. They appear anemic, and often cyanotic, especially about the lips and cheeks, and there is a tendency to rapid emaciation—a condition to which Fischer has given the name, "pre-tubercular" anemia.

The chest examination shows the catarrhal signs and ronchi usually found in ordinary bronchitis, with absence of dullness and bronchial breathing in the earlier stages. Significance, however, is to be attached to the fact that these signs are located over areas relating to the hilum of the lung and toward the bases, and not up in the apices, as was formerly stressed upon. The disease may end rapidly with exhaustion, due to overwhelming of the system by the infection, or it may assume a protracted course, as so often happens following measles and whooping-cough.

There develop patches scattered over the areas above mentioned,

giving crackling râles, high-pitch breath sounds and perhaps a slight impairment of note or marked dullness, with bronchial breathing. The left lung, just below the angle of the scapula, also the inter-scapular spaces opposite the spinous processes, especially on the left side, are areas where early signs most often appear. Anteriorly, the third and fourth inter-spaces just to the left of the sternal border are the site more often giving early positive signs. The findings reveal, besides impairment of note and sharp crackling râles, also bronchophony and pectoriloquy over limited areas at one or more of the above points.

Too much emphasis has been laid upon the significance of sweating and the occurrence of hemoptysis in children. Sweating occurs quite easily in all children, especially when the general health is depressed, thus rickets, debility after acute illness, or anemia from any cause are sufficient to cause profuse night sweats. Hemoptysis in children almost always means whooping-cough, pulmonary congestion due to advanced heart diseases, or spurious bleeding from nares or gums; very rarely indeed does a child with pulmonary tuberculosis cough up blood, and fatal hemorrhage is so rare as to be negligible.

The importance of D'Espine's sign, in the experience of the writer, has not been what many claim for it, who consider it a pathognomic sign of pulmonary lesions. Indeed, he does not consider a positive D'Espine alone to indicate conclusively tuberculous lesions over the mediastinal nodes which produce it. As a corroborating adjunct, however, a positive D'Espine is valuable.

A careful physical examination of the chest should be made, with observation of the peculiar characteristics of normal sounds in the child's chest, where the thinness of the thoracic walls render physical findings easier of interpretation than in the adult, provided that the point be carried in mind *pari passu* with the examination.

The tuberculin skin reaction of Von Pirquet has been found by the writer to be a most valuable aid in all cases, and in the very young, under three years of age, it is of positive and conclusive value, for, during this period, a test which has been properly applied three consecutive times, and in each instance resulted negative, furnishes sufficient grounds to eliminate tuberculosis as a diagnosis, while a positive reaction during this period means positive existence of active tuberculous lesions, and if the chest shows

clinical signs our diagnosis is obvious. A positive result, after the fourth year, is not so positively valuable, however, for it simply signifies that at some time during the patient's life tuberculous infection did occur. As a corroborative adjunct, however, it is more valuable than the D'Espine sign at any age.

A positive corroborative factor is the X-ray examination of the suspicious chest, and to emphasize how valuable it is the writer will quote a case reported by Dr. Frederick H. Baetjer, of Baltimore, before the National Association for the Study and Prevention of Tuberculosis at their meeting of 1916, in whom the only clinical evidence was the occurrence of a hemorrhage. The most careful physical examination several times repeated failed to reveal any lesion. X-ray examination was recommended, and the radiologist reported a suspicious area in the left third interspace one-half inch to the left of the sternum. The patient was sent to a sanatorium and there kept under close observation, and surely, indeed, it was not long before physical signs did develop at the site previously pointed out in the X-ray picture.

The finding of the bacilli in the sputum is, of course, conclusive evidence, and this should be attempted repeatedly until the diagnosis has been clinched or disproved.

In the series of cases under the writer's observation in his clinics and private work emphasis has been laid upon a complete examination being made before a diagnosis is assumed, and it has been found that physical findings are the most important source of information. Next, in the order named, are the X-ray examination, which has never failed to corroborate a lesion found clinically, while in obscure cases it has often pointed out the way to a conclusion; the Von Pirquet test, applied as previously suggested, which has given positive reaction in about 85 per cent of positive cases, while in negative cases it has always failed to react (these figures apply to children under three years of age); D'Espine's sign, which has been present in about 80 per cent of the positive cases and absent in about 20 per cent, while it has been present in about 15 per cent of non-tuberculous cases.

The isolation of the bacilli has purposely been left for last, as it is the one absolutely indisputable sign.

Finally, it must be remembered that one mode of examination should never satisfy the conscientious physician, even though it might appear conclusive, but it should be corroborated by every

other known means; and so, too, one single complete examination should be considered insufficient unless the means employed corroborate the diagnosis beyond any doubt.

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DISCUSSION ON THE PAPER OF DR. SIGNORELLI.

Dr. G. Farrar Patton, New Orleans: I do not need to emphasize the value of the paper we have heard, and there is no man in this State better qualified than Dr. Signorelli to present such a paper. He has modestly refrained from referring to his experience, but I can tell you that he has been for years one of the most active attending physicians in the out-clinic of the Charity Hospital, and, as I am Secretary of the Louisiana Anti-Tuberculosis League, I can say that Dr. Signorelli is one of our most faithful workers and is highly esteemed as one of our voluntary medical examiners.

It would be impossible to overstate or overemphasize the importance of the early possible diagnosis of tuberculosis in children, and whatever means of diagnosis can be made available it is the duty of the doctor who is responsible for deciding that matter to make himself familiar with them and become expert in the exercise of them.

If you will pardon me for referring to an instance of the importance of this work, I will mention a striking example that occurred among patients of the Louisiana Anti-Tuberculosis League sent to our camp known as Camp Hygiea, in St. Tammany Parish. In the first few years after the establishment of that camp we received a widow and two children left by a man who was a member of the Woodmen of the World. The attention of the League was accidentally directed to this family, the father being discovered in a dying condition. Our district nurse attended that man faithfully, giving the family the benefit of her experience and advice, and after his death she strongly urged the widow to come to our Free Clinic for an examination of herself and children. Having lived in close proximity to that advanced case, all three were found to be distinctly infected. They were sent to Camp Hygiea, and, while I do not remember exactly, I think they were there for five or six months. The results were brilliant, so much so that the numerous and influential order to which the dead man belonged has become one of our staunchest allies. We have at the present time among our guests—you can hardly call them sick people—in Camp Hygiea, one of whom is only five years of age, the youngest case ever sent there independently.

I am chairman of the committee that has charge of that camp, and for the information of our colleagues who may not be posted I will make a slight digression to explain that Camp Hygiea was originally started as an object-lesson. The State League teaches in its lectures and its literature that tuberculosis is easily curable, but in order to convince the people of the truth of such a statement it is necessary to show them

So, at the very outset, we established, with the limited means at our command, a camp in the pinewoods in St. Tammany Parish, which has since been removed to the present site. We have a capacity at the present time of fifty beds, and those who are sent there are instructed by the medical staff of the service as to the curability of their cases. We are not prepared to take people in advanced stages of the disease, who might go there merely to die. The object-lesson would be defeated. Those who are interested in this work should avail themselves of the free facilities offered by that camp. There is no charge, even the laundry of the guests being paid for, but we ask you not to send us people who are in advanced stages of tuberculosis, who are running a temperature, have cavities in their lungs, and who would have to be kept in bed, because we have no resident physician. Our superintendent is one of the most remarkably talented women in the country. She is a highly trained nurse and can do all that a superintendent can do, but she is not a doctor. Our facilities do not permit us to take advanced cases of the disease. We all hope that the State Sanatorium planned to be located near this city will materialize in the near future.

There is nothing that Dr. Signorelli has written that does not concern every man in this audience. Not only for the credit of our profession, but for the great cause of humanity, and especially for the rescue of little children who cannot help themselves, let us be on the alert to discover incipient tuberculosis by the use of every method that science has placed at our command.

Dr. E. J. Cather, Oakdale: I would like to ask the doctor his views in regard to the serum treatment of tuberculosis. I ask this question because I have two children who have enlargement of the cervical glands. I gave them tubercle serum; shortly afterward the cervical glands materially decreased in size. In fact, the enlargement has disappeared, and the red blood count in ten days after giving this serum was normal. I would like to hear the opinion of some of the other members as to the use of serum treatment.

Dr. Wallace J. Durel, New Orleans: I am sorry I did not hear this paper, but I would like to say a word or two on the subject. The greatest factor we have to deal with at present, and it has practically been demonstrated clinically, is that tuberculosis in children is more frequent than we supposed in the past; also that tuberculosis in the adult is, in the great majority of cases, nothing more than a recrudescence of tuberculosis in childhood. In other words, the child is infected, and a latent tuberculous condition exists, generally in the glands or bronchial tree. The resistance in the child has been lowered to an extent which has been followed by a diseased tuberculous condition, and that is sufficient to complete the primary infection and to keep the primary infection within bounds until the child reaches adolescence or adult age, for then, the resistance being materially diminished and the tissue devitalized by environment and mode of living, he develops an acute condition. I believe the majority of cases of acute miliary tuberculosis we see are nothing more than a revival of an old latent tuberculous focus that has existed since childhood.

As to the question of what to do for these children, tuberculin treatment is not necessarily indicated. We must remember that the child of three years may have latent tuberculosis as well as active. The first thing to do is to find out if the tuberculous condition is either active or

latent. If it is active, then use the tuberculin treatment. On the other hand, if it is latent, the patient needs the hygienic treatment, with a little modification. I make it a routine to give the syrup of iodid of iron, and I have seen dozens of cases in which tuberculous glands, after a year or two, have disappeared. I had that occur in members of my own family. Where we find that the enlarged glands are not due to diseased tonsils or other conditions, but due to tuberculosis, and not to syphilis, give large doses of syrup of iodid of iron with the hygienic treatment. Then, if a more active and more aggressive treatment is indicated, give tuberculin itself. The point I want to emphasize is the marked intensity of the infection in some children, whereas the infection in other children is latent. Whenever it exists it may be modified one way or the other, but bear in mind that most adult tuberculosis is simply the consequences of tuberculosis in childhood.

Dr. George Dempsey, New Orleans: A paper of this kind ought to be encouraged by the Society. It gives us practical, every-day lessons, and I do not believe a discussion of half an hour by the different members of this Society would be any too much on an important subject of this kind. If Dr. Signorelli wishes to remain, I will be glad to have him do so, but otherwise he should be permitted to close the discussion.

Dr. Signorelli (closing): I want to thank Dr. Dempsey for giving me the opportunity to close this discussion sufficiently early to make my train schedule. In the first place, I want to thank Dr. Patton for his generous consideration of my paper.

The title of my paper would show that I did not deal with the subject of treatment. I had to generalize, more or less, in view of the limited time.

In answer to the question regarding serum treatment, we do not use the serum treatment. The treatment of active cases is usually referred to our camp, and, of course, when we once make a diagnosis of tuberculosis, the cases that go to the camp pass out of our hands, temporarily at least.

The important point I wanted to bring out was the making of an early diagnosis. I tried to show that there was danger in passing over cases which come to us and which led us to make a diagnosis of bronchopneumonia, grippe, lung, or growing too fast, etc. All of us have been guilty in the past of making such diagnoses, simply with the hope that the family would be satisfied, but this is not satisfying to our own consciences.

As Dr. Durel has pointed out, the vast majority of cases of tuberculosis in adults can be traced to infection in childhood. A good many cases of active tuberculosis, miliary tuberculosis, generalized tuberculosis are diagnosed accurately, but the disease passes away undiagnosed in far too many children.

FEEBLE-MINDED.*

By JOSEPH A. O'HARA, M. D., New Orleans.

In a broad sense, the word mental deficiency is as applicable to a mental decay as it is to a mental non-development. But, when it is used in the strictest sense, it should be restricted to that mental state that has never developed. Esquirol, in defining the difference between the demented and the feeble-minded, says that a "dement" is a man who is deprived of the goods he formerly enjoyed; he is a rich man who has become poor: but the idiot has always lived in misfortune and poverty, or, in other words, the idiot, imbecile and feeble-minded (including the Moron, from the Greek word meaning fool) have always lacked something that the dement once possessed.

The Royal College of Physicians in London defined the feeble-minded as those persons in whose case there exists from birth or from an early age mental defectiveness not amounting to imbecility, yet so pronounced that they require care, supervision and control for their own protection or for the protection of others, or, in the case of children who, by reason of such defectiveness, appear to be permanently incapable of receiving proper benefit from the instruction in ordinary schools.

The American Association for the Study of Feeblemindedness adopted the following: "The term feeble-minded is used generally to include all degrees of mental defect due to arrested or impaired mental development, as a result of which the person so afflicted is incapable of *competing* on equal terms with his normal fellows, or *manage himself* or his *affairs* with *ordinary* prudence." It classifies the feeble-minded into three groups of *mental* age:

Idiots, whose mental age is *below* three years; imbeciles, whose mental age is between three and seven years; morons, whose mental age is between eight and twelve years.

The "Mendelian" law has definitely established that the offspring is not intermediate in type between its parent, but that the type of one or the other parent is predominant. According to this law, a hybrid is an animal or plan bred from two species—that is, if two well-defined varieties of the same species be cross-fertilized the resulting *hybrid* offspring will show only the distinguishing characteristics of *one* of the parents, and this is termed the "*dominant*

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characteristic," whilst the characteristic of the other parent is only dormant or latent, and is known under the name "recessive," and it will appear in the next generation of the hybrid.

From this, then, we may calculate the following: That both parents being healthy and free from any neurotic taint, the offspring must be healthy, but if one of the parents suffers from a neurosis, chronic alcoholism, epilepsy, syphilis, consanguinity of parents or some possible poison (lead, etc.), the nervous system will be less durable and more unstable; but if the taint is not too extensive or deep-rooted, a few generations of healthy mating will eradicate this defect, whilst the mating with neurotics will develop offsprings who are absolutely defective.

When we attempt to decide the etiology of the different groups we should remember, first, what is the cause of the defect?

Is it the result of the absence of some element in the germ plasma? for it is here we find the true hereditary type; or is the result of injury to the child, intra-uterine, or during delivery of the child?

Kraipling, in his latest edition, says that a great number of cases of feeblemindedness are the offspring of cases of dementia precox (known or unknown), whose predominant symptom is only dementia.

Again, investigation by Myerson of the study of the family groups also show some interesting data on heredity—that alcoholism or epilepsy in the male subject means an offspring who will have a resulting neurosis, whilst alcoholism and epilepsy in the female means an offspring who may develop not only some mental deficiency, but probably be a psycho-neurotic or an epileptic.

It is now conceded that injuries or some exhausting disease of the mother during the period of intra-uterine life of the child will result in that form of feeblemindedness especially known as the Mongolian type. While some of the authorities claim syphilis as the greater cause, particularly of this form, still we find a great number of cases where "lues" can be positively eliminated.

On the other hand, conclusive proofs have been established that, during life in utero, some degeneration or deep-seated uterine disturbance is the greatest cause. Investigation has shown that the greatest number of the Mongolian type are found amongst the last of the children born, and that it is the exception to find them amongst the first-born, and that it is *congenital,* and not hereditary, in a true sense.

During extra-uterine life, feeblemindedness may be the result of partial asphyxiation, injury by forcep, prolonged pressure, infectious disease or direct injury to the child itself, causing hemiplegia or diplegia.

Looking at it from another angle, we have the children born of illiterate parents who develop stigma from unsanitary environment, physical diseases or faulty methods of training. These become mental defects, dull or retarded.

In this class we find the social and economical burdens of uncomplicated feeblemindedness.

By reference to the admirable deductions made by Victor Hugo in that portion of his writing of "Les Miserables" devoted to the study of the street gamin, we find that he was writing not only of Paris, but of New Orleans and all large and small cities of the world. He refers, not to the city and its street children, but to cities and their street children, when he says, "To depict a child is to depict a city."

He continues to write:

"All anarchy is in the street child. He lives, develops, gets in and out of scrapes—a thoughtful witness, amid suffering, of our social realities and our human problems. He thinks himself careless—but he is not. He looks on, ready to laugh, but ready for something else also. Whoever ye are who call yourselves prejudice, abuse, oppression, iniquity, despotism, injustice, tyranny—beware of the gaping child of the street. This little fellow will grow."

He will grow; but how? He will grow along the lines of least resistance. He will choose that pathway that runs where he will be able to let his undeveloped mind wander wherever it will not be under burdens of government, control, anxiety, worry, cares or responsibility. He is shiftless, careless, destructive, incorrigible, ironical and insolent at times, all depending upon his environment.

All crimes of men begin in the vagabondage of the child, and it is this vagabondage of the child, under proper educational environment, that becomes lost in the men. For the child of the street may be the child of destiny.

In referring to mental defect of the most *profound* degree we find a subject whose chief characteristics are his inability to appreciate the physical danger which threatens his daily existence, his inability to perform labor of any kind, be it for himself or others, no matter how essential it may be to his own future well-being.

He is one not capable of caring for his bodily necessities; he will refuse to wash or dress himself. Some subjects are of such a low grade that they do not seem to appreciate the pangs of hunger or thirst until food or drink is supplied to them, whilst others will even refuse these necessities when it is supplied. Some subjects are capable of pronouncing a few simple words, but they are mostly of the guttural type, and are drolled out from a feeble voice.

These forms have been divided by Tredgold into the *incomplete* and *complete* types, the incomplete being those who feel, appreciate and realize some of those essential elements which go to make up life's history, and who, under competent training, can be made to accept some of their own responsibilities, and it is this form, under competent training and supervision, that can be made useful and able to perform some manual labor whilst under surveillance. It is remarkable, in this incomplete form, to see the metamorphosis that can be accomplished against such odds. Imprisoned within their disturbed, restless and misshapened bodies, cut off from all that would make them happy, and all the essence of childhood, there is a mind which is crying out to us to be set free.

But in the complete type, where there are no evidences of any organic instinct, these individuals lack the powers of attention, and for this one reason alone cannot be taught labor of any character. These are the dependent mental defects, and it is this type in particular that eventually becomes an institutional case.

But a greater number of these unfortunate cases, especially the high-grade imbecile, being without any restriction, he becomes inoculated with wanderlust, and in this way sacrificed and abandoned to a kind of a fatal immersion in public crises which devour in him his honesty, conscience and pride in his whole inner self. We find him here a plaything and a pawn in the hands of the well-trained criminal; he delights in his associates, whose company he eagerly seeks, and we find him *not a mental bankrupt,* but a distributor of venereal disease and a perpetrator of petty crimes.

Through this channel he becomes a frequent inmate of the Parish Prison and House of Detention, and here he again comes in contact with the criminals of the highest grade. Easily led, he is prone to all evil habits; he becomes an alcoholic, or an addict to cocain, morphin, heroin and associated narcotic drugs, prone to lie without reason and lie when the truth would be more beneficial; he is expansive in ideas and morally insensible, and can differ-

entiate in the abstract only as far as he is personally interested, but, when it comes down to practice, he is unable to differentiate between right and wrong. He is bombastic, and shows no embarrassment or shame about wrongdoing, and *never* shows any sign of remorse; correction or punishment has no effect. Thus he becomes a menace to society, finally ending in an institution, to be forever an expense to the community.

The prevention and cure of insanity has been neglected in this State to such an extent that it has caused an eclipse whose shadow overpalls all of our other good deeds.

When we look around for methods for the correction of feeble-mindedness we find that the field of mental hygiene is so broad and extensive as to suggest no probability of success, but any attempt to correct this condition in Louisiana will be a march of progress in the right direction. What work is now being done, fortunately, is under the surveillance and attention of well-trained men who, working along the lines of false economy, are just able to make ends meet. I say false economy, because the care and maintenance of the insane is a responsibility that has reacted on this State through neglect in the protection of these insanes, when they could be converted into human beings at a profit to the State. The proper care and protection of these unfortunates is one of the most successful financial propositions ever undertaken by any State, besides being one of the noblest monuments that any country in the world can point to with pride.

Unfortunately, when a sufficient appropriation is asked for, the authorities chop it to pieces in favor of other public purposes which are given the preference, forgetting that the care of the insane is the care of a man, not a beast. The time is now ripe for the medical profession to at least stand up and demand that these institutions receive the proper support and care. We have commissions for the control of the boll-weevil, eradication of the tick, foot and mouth disease, protection of shellfish and wild game, hookworm, and God knows what else; but we have no commission that is intended to *modify* or *control* this vast social, moral and economical force represented by the feeble-minded persons at large in this community. We should begin at once by seeing that the constituted authorities adopt methods for the prevention of mental abnormalities—by segregation and sterilization of defectives and degenerates, and supervision of marriages, of tubercular and

syphilitic subjects, also alcoholics, drug addicts and cases of heredity and consanguinity, and by early education to correct mental defects. Beginning in their early years, you can find the level of their adaptations to their situation in life and fitness for occupation, for we must realize that life is a process of adjustment and education.

Through the general practitioner, he giving to the family sufficient early knowledge and showing to them the defects in the child, for it is in the early youth we find the best chance for progress and advancement.

The establishment of psychopathic clinics in every hamlet of the State, where these cases will and can seek early advice and treatment, and also where the family and friends can receive institutional training and hints for the guidance and early treatment of cases at home, should be advocated. Such service can best be rendered through an out-patient department of a hospital for feeble-minded, where facilities for the exhaustive study and treatment will be accessible for special cases, and by receiving borderline patients for early observation, prevention and treatment.

Educators, charitable agencies, institutions and juvenile courts should be shown that it is mostly some mental defect or mental disease that is the primary cause of the backwardness in school and of delinquency and crime.

The underaverage child, who does not profit by the usual course of study, should be turned over to special schools and special teachers, for their presence in schools has a great tendency to retard the advancement of the normal child.

Great strides have been made in the study and care of the feeble-minded in twenty-one States in America, as follows: California, Connecticut, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New York, New Jersey, Ohio, Pennsylvania, South Dakota, Washington and Wisconsin. Up to a few months ago the absence of the name of Louisiana was noticeable. But, through the forethought of the executor of the will of that most benevolent and charitable woman, Mrs. Sophie Lengsfield Gumbel, who left $50,000 to be used for charitable distribution, Messrs. Henry Lester and John Gumbel, after careful consideration and investigation, used the above sum ($50,000) for the founding of an institute for the feeble-minded in New Orleans. This is the first institute of its kind in

our State, for which we and the whole State of Louisiana should be proud.

Discussion on the Paper of Dr. O'Hara.

Dr. R. P. Evans, Shreveport: It has given me great pleasure to listen to such an admirable paper as Dr. O'Hara has just read. He has covered fully the most salient points in regard to feeblemindedness, and it would be useless for me to enter upon such a broad subject.

He has brought out a point that should interest us—namely, that we should try to weed out the feeble-minded in different schools, prisons and hospitals and place them in proper institutions for future training. The State has not made any such preparation for this class of patients. It is true we keep them in State institutions, such as the one here and the one in Jackson, but there should be special schools, special institutions, for handling these cases. There should be farmwork for them, and it is the duty of the physicians of the State to get together and help out in the work that is being done along this line at present. While it is in its incipiency, we can be of material assistance in trying to secure better facilities for handling these cases when they are brought to us.

Dr. Thomas E. Wright, Monroe: I wish it were possible to have this paper in the hands of every responsible layman in the State. It is of especial interest to us; we note in it a keen simplicity and a strong appeal for a firmer moral force in the State which will offset the tendency to feeblemindedness. The author impresses upon us the importance of a keener intelligence on the part of the average doctor as regards mental and nervous diseases. I am disposed to repeat here what is already well known—the average doctor knows very little about two diseases: skin diseases and mental diseases. To the average doctor, a man is insane or he is not insane. We are getting to appreciate that there are many different stages between the normal mental state and the insane person. We are coming to believe that the coroner and the judge should be as near expert in the line of mental disorders as possible. This would be of vital assistance in the handling of these cases.

Every loyal doctor will agree with the author about the need of greater help in this State for this class of patients. It is to be hoped that our present administration will be able to finance sufficiently these institutions for the proper handling of the feeble-minded and insane. The average politician, as well as the average layman, must have a keen appreciation of the needs of this class of patients.

I mention with pride the work being done at the Louisiana Training Institute in Monroe. We have here a number of wayward fellows so well pictured in this particular paper. Without doubt a large percentage has a degree of mental defect responsible for this waywardness. The type of work being done in this particular institution for this class of boys will certainly result in straightening out just those defective mental traits and will give to us a substantial percentage of its output in honorable and hardworking men.

The need of this type of intermediate institution, wherein the beginning mental defect as well as those of intermediate degree can be treated and cured, is appreciated by every intelligent doctor in the State. A general concert of action on the part of the physicians, together with leading citizens and politicians, will ultimately result in the establishment of just such institutions right here in Louisiana.

Dr. Roy M. Van Wart, New Orleans: Education ought to be adapted to the requirements and capacity of the individual. Our school system makes no attempt to do any more than to put the average boy or girl through a certain machine. I believe, regarding the question of feeblemindedness, we need an educational system that is adapted to the requirements of the individuals, and the problem of feeblemindedness and education along certain lines is a problem of the State. The State takes care of the average individual and of the individual who is not up to the average. Schools are not adapted to the conditions of the community in which the schools are situated. In other words, a school education that is adapted to make stenographers and bookkeepers is not adapted to a farming community. The farming community should be a part of the school system, no matter where it is. In a manufacturing industry we should take into consideration the education of the younger individuals growing up.

Dr. J. N. Thomas, Pineville: I have listened with a great deal of interest to the paper of Dr. O'Hara and the discussion of Dr. Van Wart. I fully agree with him in regard to feeble-minded people. There are two angles from which to view this question—the one of theory and the other of practice. In theory it is a fine thing for the State to take hold of this question, but practically it is almost an impossibility. In some of the great States of the Union the largest items in the budget of expense is appropriations for insanity and the feeble-minded, notably so in the State of New York. I venture the assertion that if the State of Louisiana would appropriate one million dollars for the erection of buildings and the establishment of a colony for the feeble-minded, in five years' time there would not be a vacant room in the institution. You could establish a chain of buildings from the Mississippi River to the State of Texas, and, if well maintained and managed, you would fill them up in the course of time.

The question with reference to lessening the number of cases of insanity is enormous. The law of eugenics would be the first consideration. I believe that when you can stop the propagation of the species we will not continue to have weak-minded people and the large increase in the insane. The proper method, as we all know, would be castration and ovariotomy. If those operations were done for three generations I believe that feeblemindedness and insanity would be decreased 50 per cent. I believe such a law has been passed in two States—namely, Wisconsin and Indiana. Another question: if the use of alcoholics, as brought out in Dr. O'Hara's paper, produces neurotic children and epileptics, then whiskey should be abolished—all alcoholics should be abolished. I thoroughly agree with him in that. My idea would be, if it can be done, to castrate men and take out the ovaries in women and stop whiskey.

Dr. Roy M. Van Wart, New Orleans: A law has been passed in one of the States to the effect that no person can be discharged from an institution for the insane or feeble-minded until that person consents to an operation which will sterilize him or her as the case may be. This operation consists in the resection of the Fallopian tube and the resection of the vas deferens in the male. The law has been carried out on 600 people at the present time, with no fatalities. You can readily understand the possibility of the propagation by these people. But another practical problem is, what are we to do with those we have? In the present state of knowledge, we are at a tremendous cost to take care of

them, and the sooner we realize its importance the better. The question must be one of education on the part of the doctor, in the first place, and, in the second place, the doctor must educate the people in the community in which he lives. The responsibility for this rests upon the medical profession. Our Representatives and State Senators should be educated along these lines. A campaign of education is very essential before we can expect to accomplish any of those things which are taking place in other States. The doctor must realize he has a duty to perform, and to perform that duty it is very essential for him to be in a position where he can approach State Representatives and State Senators and have them do the rest.

Dr. O'Hara (closing). I want to thank the gentlemen for the interest they have taken in my paper. My whole idea in writing this paper was to try to stimulate thought and effort which would eventually lead to some useful purpose. There are high-grade imbeciles in our institutions who are able to make shoes, etc., and do a great many other things. We also know that there are hundreds and thousands of feeble-minded who, if they were turned out on farms, could raise enough produce to supply the whole world with continued food stuffs. Approximately 500,000 high-grade imbeciles in the United States could be turned into high-grade, first-class farmers and feed the world, and the people of Louisiana and of other States need never be afraid of starving to death. That is one great advantage they could be educated into, if nothing else. The only way to stimulate people to become interested in those who are feeble-minded is by interesting our Representatives and Senators, impressing upon them the importance that this has got to be done. Right here in this institution at Pineville, where the best of care is taken of the inmates, Dr. Thomas does not receive one part of what he should receive for the care of these individuals. Let us take those cases of feeble-minded that sat on these benches this morning and the other grades of idiocy, put them in the feeble-minded class, and let them work, and you will be able to make this institution one of the biggest in the world. Take any institution where the inmates are put on that basis and they will prove valuable assets, the same as they ought to do, in any State, no matter whether it be New York, Wisconsin or any other State. Louisiana could do a great deal more than it has done for this class of individuals if the appropriations were larger. To accomplish much good in this direction requires considerable money—yes, millions of dollars. With adequate financial support we could control, to a great extent, the spread of venereal diseases, which leads ultimately to insanity. It is necessary to take these unfortunate individuals and put them on proper planes of advancement, otherwise they are bound to follow the lines of least resistance unless curtailed. Let us have a million dollars or more to spend in connection with this work, to put up buildings, to improve the environment of these people, and either prevent or curtail the spread of syphilis, and, maybe, post-syphilitic conditions. As medical men we stand up for preventive medicine, and insanity can be prevented in 90 per cent of the cases if taken early.

THE TOLERANCE OF THE SCROTUM FOR FOREIGN BODIES.*

By PAUL J. GELPI, A. B., A. M., M. D., New Orleans.

The tolerance of human tissues for foreign bodies has long been recognized. We have all had examples of splinters of wood, needles and bullets which have remained in the tissues for an indefinite period. Our knowledge of asepsis teaches us that this can only occur, provided either there has been no admission of infectious material or that phagocytosis is able to overcome the infection. Nature covers the strange body with a protective fibrous coat. The correctness of this conception has made possible the wiring of bone, the use of Lane bone-plates, the Parham-Martin metal bands and other such ingenious surgical devices. It has also paved the way to the successful transplantation of vulcanite, silver, celluloid, etc., in the scrotal tissues for cosmetic as well as psychic effect.

Man is essentially a sexual being, and is very proud of his virility. It is for this reason that any disturbance of function or any deformity, whether congenital or resulting from disease or surgical exigencies, exercises a profound influence on his mind and makes of him a confirmed neurasthenic. Such considerations, no doubt, have prompted the replacement of testicles by artificial ones.

The collection of cases which follows shows that the literature on testicular prosthesis is scanty. We have only been able to collect fifteen reports of cases, including my own. We note that, with one exception, the technic of operation is the same. The scrotum is incised on the dorsal surface, and the vaginal tunic is opened. The artificial testicle is inserted; the tunic and skin are sutured separately. Preference is for smooth bodies. The variety of substances used demonstrates the high degree of tolerance of the scrotal tissues; they include silver, paraffine, vaselin, silk, celluloid, vulcanite, rubber, plaster and marble.

Hermance (E. M.) was the first to report the successful introduction of an artificial testicle. The operation was performed in 1885, and the report of it appears in the *Amer. Journal of Insan.*, 1894-95. This was done for the relief of morbid mental condition in a monocryptorchid. Man, 21 years of age, with a congenital left undescended testicle, which could not be brought down. An in-

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cision two and one-half inches long was made on the dorsal side of the scrotum and the vaginal tunic was opened. A silver testicle was inserted and the wound healed aseptically. He further states that no complications have followed and the testicle has been worn without any ill results and no interference with virility.

Weir (R. F.) reports three cases in which he replaced the testis by artificial bodies. The first was a young man with tuberculosis of both testicles. One was removed and a celluloid testicle substituted. The other was scraped. He remarks that two years later the man's mental condition was satisfactory. Case 2 was similar to Case 1. The third case was a man 65 years old on whom double castration was performed and artificial testicles inserted.

Guiteras (R.) reports an interesting case of introduction of an artificial testicle. Man, 32 years old, had congenital undescended left testicle, which was brought down by operation. It became inflamed and it slipped back to its original position. This necessitated its removal. Scrotum was incised over site of old cicatrix and the tunica vaginalis was opened and a sterilized celluloid testicle was inserted with good result. Reference is made to this case in his book on Urology, 1912. He says:

"I operated on him fifteen years ago, making an incision through the front of the scrotum and inserting a mass of well-polished celluloid the size of a normal testis. I advised him not to have the other put in for a year or so. * * * One year later I saw the patient again. He had entirely changed from a tall, very thin and nervous individual to quite a robust man, thirty to forty pounds heavier. * * * A few years ago I put in the second testis."

Loumeau reports two cases of testicular prosthesis after castration for prostatic hypertrophy. The idea was to give the patients the illusion of the persistence of their virility. The material used was small ovoid masses loosely plaited into the form of the seminal gland. One was negligently inserted in the extra-vaginal layer and was badly tolerated. Finally it caused irritation, which led to its expulsion. The author notes that at first they remain soft and pliable, but later, owing to the absorption of organic salts, they become hard and feel like small stones.

Guelliot reports the case of a young man of 35 who, at the age of 22, had one testicle removed for tuberculosis, and now had to undergo castration of the other. He introduced into the cavities testicles of twisted and plaited silk. No complications. Perfect success.

Cartier reports castration of right testicle performed in a man

of 44 years. He had an artificial testicle constructed of silver, and which was subjected to rigorous disinfection. After total resection of the vaginal tunic he placed this testicle in the place of the suppressed testicle and sutured the scrotum. No drainage. After course normal. Ten days later the patient got up.

Silver artificial testicles are preferable to rubber, celluloid, etc. The latter kind, in the long run, can be attacked by local secretions. Besides, metallic testicles of a weight of about twelve grains are not easily drawn towards the inguinal ring by the retraction of corresponding part of the scrotum.

This man, operated June, 1895, has recently been seen. The testicle is quite mobile in the scrotum and is well tolerated. There is noted, however, an almost complete atrophy of the right lobe of the prostrate.

Trautner (H.) reports man of 20, bilateral castration. A year ofter operation, sterilized vaselin was injected with excellent results. At the time of reporting, the patient possessed his virile powers and suffered no inconvenience. The esthetic effect was good.

Carnabel reports a case of testicular prosthesis with paraffine, similar to that reported by Guinard.

Guinard reports the case of a man 27 years old. Right congenital inguinal hernia and testicular ectopia. Patient asked for artificial testicle. After operating the hernia, an incision was made in the right side of the scrotum, in which a mass of paraffin was introduced. After closing wound with catgut he dealt similarly with the right side. Suture of skin without drain. Paraffin with a high melting point (62°) was used. This is a "moral" testicle, but a prosthesis for the purpose of appearances.

Tuffier's discussion of this case is not uninteresting. Formerly he had used artificial testicles in many cases. Regarding some of these, he is unable to give any news, because he has not seen them again. Of those he has been able to follow, some had no accident, but the greater part had either some pain or else a small fistula, which has necessitated the removal of the foreign body.

In the same discussion, Regnier mentioned a case which he had operated twelve years before. He had placed "une olive œsophagienne" in the scrotum. No complications.

Burmeister (R.) operated on a man of 28. Left testicle extirpated for tuberculosis. Paraffin of melting point of 55° was properly shaped and introduced into site of removed testicle. No reaction, wound healed up perfectly and the results are good.

Picque (L.) refers to a few of the cases in literature of testicular prosthesis; they are included in the accompanying extracts. He mentions that Humbert, of Paris, used glass and plaster, and, Demons, balls of marble.

He reports a case of a man in whom a testicle had been removed in a radical hernia operation. An artificial testis of hard caoutchouc was made, and, after asepsis, placed in the scrotum. Two years later the man came to the hospital, asking that this be removed. He was possessed of an obsession to get rid of it, for some reason. On operation, nothing was found and the artificial testicle was removed without difficulty.

Lexer. Short note of a man who had undergone a radical operation for testicular tumor and a paraffin testicle implanted. The paraffin had become impregnated with the tumor substance. It was removed nine months after insertion.

Morestin (H.) refers to the many advantages possessed by vulcanite as a plastic material. It is well tolerated by the tissues. In his patient, castration was performed on the right side for tuberculosis. A piece of vulcanite of the size and shape of a testicle was placed in the scrotum and the wound sutured. After fifteen days the patient got up and resumed his occupation. There is no tumefaction and no pain or pressure. The foreign body appears to be perfectly tolerated. He has every reason to believe that the good results will persist.

I wish to add to this list of cases one which is not devoid of interest.

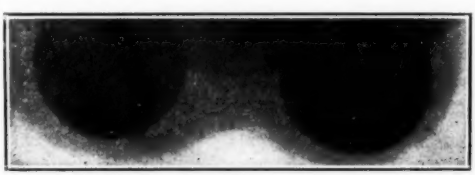
About two months ago M. K., a man of 28 and a native of England, consulted me in my office. He explained that his testicles had never descended and that up to two years ago the sexual function was normal. Coitus could be performed naturally and without effort one to four times a week. Five years ago he had a fall and developed orchitis of the left testis. He consulted a surgeon in Glasgow, who advised its removal. Orchidectomy was immediately performed and the patient was advised to leave the other side alone.

A year ago his sexual power began to decline, until intercourse once a month was the limit of his capacity. This is what brought him to my office. Physical examination disclosed no evidence of a right testicle. His mental condition was deplorable; he declared that life was unbearable. He was told that an attempt could be

made to bring down the right testis, but nothing could be promised, in view of the fact that his symptoms pointed to atrophy of the remaining organ. He was sorely disappointed and informed the writer that he had expected to get married, but that he now realized the futility of doing so. In a moment of despondency he said he would return to England, go to the trenches and take his chances. Furthermore, he felt much mortified at the thought that he was physically different from his companions, and begged that something be done to improve the appearance of his genitals before he enlisted. The possibility of implantation of foreign bodies in the scrotum was suggested and gratefully received. On March 14 an operation was performed. The right inguinal canal was opened and search was made for the testicle, which was eventually located in the right iliac fossa. It was small and flattened, about the size of a small lima bean. We decided to leave it undisturbed, and the inguinal canal and external ring were closed. We then proceeded to the implantation of the artificial testicles. A vertical incision was made on each side of the scrotum, the tunica vaginalis was opened and a solid rubber ball was inserted in each cavity. The tunica and skin were then sutured with catgut.

I was able to find no other reported cases where rubber balls were employed for testicular prosthesis.

Shortly after operation, libido was increased and erections occurred nightly; in fact, they were so persistent and annoying as to necessitate the use of bromides. We believe this to be merely psychic and temporary, and that he will soon reurn to his condition before operation. On the other hand, the change in his mental condition is striking. He has changed from a state of despondency to one of buoyancy of spirit and cheerfulness, and appears to take a real interest in life. The esthetic appearance is good and the parts look fairly natural.



We present a radiogram of the rubber bodies in the scrotal cavities. These were radiographed with difficulty, owing to the small size and retraction of the scrotum, which brought them close

to the pubes. We are indebted to Dr. Amédeé Granger for his pains and trouble in taking the pictures.

At the time of preparation of this paper both small wounds were doing well, but subsequently stitch abscesses developed on each side, leaving a small fistula. These were treated at first with iodin and later with castor oil and balsam of Peru, one part to six. The fistula on the right side had closed once, but opened again; the left side is much smaller and shows evidence of early closure. As the secretion has become progressively scantier and thinner, there is no pain and tenderness, and no evidence of inflammation around the two spheres, we hope for early success. I propose to make a supplemental report later.

Discussion on the Paper of Dr. Gelpi.

Dr. H. W. E. Walther, New Orleans: The essayist is to be congratulated in this case on the success he has had so far, and there is no doubt the psychic effect produced by such bodies is going to do a lot of good in such cases. I think I have read some of the reports that Dr. Gelpi has reviewed in the literature, and, as he says, there may be some advantages in using a rubber ball if it is insoluble. If this rubber is insoluble by the body fluids I should judge rubber would be better than metal.

Dr. Charles L. Chassaignac, New Orleans: I can add an unreported case of this character occurring quite a number of years ago. This was in a young man who had atrophy of one testicle as a result of mumps, and the object in that case was entirely cosmetic, or ornamental. He was mortified at times, because it was noticed at the gymnasium or some such place, that there was something wrong with the scrotum. At that time it was a comparatively new procedure. There were very few cases reported, and in this instance celluloid was the material I used, because that had been successfully employed. As you see by the paper, there is a variety of materials, and you pay your money and get your choice. Almost anything will do, because all cases reported have been fairly successful.

The only thing mentioned which might be objected to is the use of marble. It would bring too much weight to bear, and the only advantage would be that the man could say truthfully he had a "stone" there. As the only other comment I will make is that the doctor has treated the subject interestingly and adequately, he will not have his feelings hurt at one little criticism. I do not exactly approve of his use of the word testicle. A testicle made of silver, rubber or what not, is not exactly a testicle, and I think it is more prudent and less liable to cause criticism if we resort to the use of the word "ball," which is legitimate and at the same time popular.

Dr. G. Farrar Patton, New Orleans: There is one question I would like to ask about these rubber balls—namely, do you have them made specially and are they externally smooth?

Dr. Gelpi (closing): I thank the gentlemen for criticizing my paper.

In reference to the remarks of Dr. Chassaignac, who is always precise, I think, after all, he is probably right; still, we very often, especially in medical nomenclature, give names to things that are not exactly applicable. I think the suggestion as to the location makes the term fairly satisfactory, anyhow.

In regard to Dr. Patton's question, I will say that I wanted to get celluloid and was unable to find it. I did not find a ball of celluloid which would have been in one piece that was not glued together. This man was in a hurry to have things done. He was delayed on account of a mishap, and he was in a hurry to get back to Mexico. I looked around and searched for ivory. Some one told me that ivory had been used in these cases, but I could not get suitable pieces of ivory, so I discarded ivory. I finally made up my mind to use rubber. When we were boys we used to lose our rubber balls in the gutters and would not recover them for a year or two years afterwards, and, notwithstanding the exposure to weather, they were returned to us in a fairly good condition, so I thought, with nature's protective coat, it would remain almost indefinitely.

WHY GASTRO-ENTEROSTOMY FAILS TO RELIEVE.*

By W. R. JACKSON, M. D., F. A. C. S., Mobile, Ala.

The operation of gastro-enterostomy, or gastro-jejunostomy, is performed for the relief and cure of duodenal ulcer, gastric ulcer and cancer and gastric stenosis.

The symptoms that demand surgical intervention are those usually present in chronic gastric ulcer, duodenal ulcer and gastric carcinoma. The most conspicuous of these are pain, nausea, vomiting, indigestion, hyperacidity, hematemesis, melena, constipation and emaciation.

When posterior gastro-enterostomy for gastric ulcer is done the patient usually manifests marked, rapid improvement very soon thereafter, gaining from thirty to forty pounds in two or three months.

After a period of time, varying from six months to two years, most of the old symptoms recur—pain, distress after meals, nausea, vomiting and loss of weight. All of these symptoms indicate that the patient is not cured.

If we seek the cause by a second operation we find that the ulcer has not healed or has recurred, that new ulcers have formed or the old ulcer has assumed a malignant aspect.

In many cases of gastric and duodenal ulcers, where operation

* Read before the Alabama State Medical Association, at Montgomery, Ala., April 18, 1917.

has failed to give any relief whatsoever, we must seek the conditions that will give us the explanation of our failure.

What are the reasons or causes of failure in these cases? When it is recalled that gastric and duodenal ulcers are very often produced by a metastatic infection from a preëxistent local focus of pus it is no wonder that the ulcers are not cured by gastro-enterostomy, especially when the primary or essential etiologic factor is allowed to remain undisturbed.

Recently it has been shown that these pyogenic foci exist in various parts of the body, such as the teeth-alveoli, tonsils, prostate and the sinuses of the superior maxilla, frontal and ethmoid, also in the appendix and gall-bladder, as well as the crypts of the urethra and oviducts.

Any pus focus in any part of the body not necessarily chronic will cause distant metastatic infection. It appears that the mucosa of the stomach and duodenum is specially prone to infectious infarcts, explained by the frequent irritation of these membranes, thus favoring the localization of embolic bacteria. The size of the ulcer will depend, of course, upon the area of tissue infarcted.

There are other causes of failure of gastro-enterostomy than the failure to remove the preëxisting pus focus. The following conditions have been found to explain some of the failures: 1, imperfect anastomosis, as too small a stoma and angulation of jejunum; 2, presence of ulcers in the cardiac end of the stomach; 3, jejunal ulcers from sutures; 4, cicatricial contraction of the stoma; 5, too long a loop, giving rise to a viscious circle; 6, presence of other pathologic conditions, such as gall-bladder disease, appendicitis, intestinal stasis, ptosis of intestines and bands; 7, herniation of the jejunum through the meso-colon; 8, a neurotic patient.

It is conceded that gastro-enterostomy does the greatest good when the pylorus is obstructed by cicatricial *contraction* from the ulcers; thus it would appear that the operation is one of drainage. If ulcers are located elsewhere than at the pylorus, the operation does very little good, and, if any, it results from the bile and pancreatic juice entering the stomach and neutralizing the hydrochloric acid. The consensus of opinion of the best operators to-day is that all chronic ulcers of the stomach and duodenum should be *excised,* and then gastro-enterostomy done.

The most common site of ulcer of the stomach is at the pylorus, and the most common form is the chronic indurated.

Chronic indurated ulcer of the stomach near the pylorus always demands excision, or pylorectomy, and, if the ulcer involves the lesser curvature also, sub-total gastrectomy is in order.

It would appear that the frequent practice of gastro-enterostomy *without resection or excision of the ulcers* benefits the patient but very little, and, when improvement does result, it is of short duration.

The same rule of excision and resection applies to duodenal ulcer also. Gastro-enterostomy for duodenal ulcer, *without excision of the ulcer or resection of the pylorus, usually results in failure to cure the patient.*

Operation for gastric ulcer is frequently done when no ulcer is demonstrable. In such cases, the patient frequently shows marked improvement; therefore, it is taken for granted that ulcer did exits and its location problematical. Is gastro-enterostomy indicated when the ulcer is not seen or felt? Is gastrotomy and search for the ulcer ever justifiable when its presence cannot be shown otherwise?

What are the indications to be met to make our operations for gastric and duodenal ulcers more satisfactory?

I would place first and foremost the *removal of all preëxistent local infection;* and, second, the *excision and resection of all ulcers.*

Make a large stoma in your anastomosis, "suture the meso-colon opening an inch upon the stomach wall, so that this part of the stomach goes down through the mesocolon like a hopper, and the freedom of the ends of the jejunum is unhampered." Tack with suture the jejunum on each side of the anastomosis to prevent angulation of the same.

Perform the "no-loop" operation—that is, the loop of the jejunum is so short that there is no angulation to cause the "vicious circle."

Use catgut, and not linen or silk, for the "mucosa suture," thus avoiding the formation of jejunal ulcers, which give rise to symptoms like that of gastric ulcer. Be sure that the appendix is not affected, or, if it is, remove it at the same time of the main operation.

Likewise examine the gall-bladder for infections and stones, and

if either is present correct same; intestinal stasis, ptosis and bands should be looked for and corrected if possible.

It should be remembered that unless the many foci of infection which may produce the various metastatic lesions, such as gastric ulcer, are thoroughly and permanently removed, gastric and duodenal ulcers will recur, even if they have been *resected and excised.*

PROCEEDINGS OF THE AMERICAN SOCIETY OF TROPICAL MEDICINE

THE DIAGNOSIS OF LEPROSY FROM A PUBLIC HEALTH STANDPOINT.*

By G. W. McCOY, M. D.,
Surgeon, U. S. Public Health Service.

The problem of the diagnosis of leprosy confronts the health officer and the practitioner sufficiently often to justify its discussion. With practically all of the other infectious diseases, where public interest demands that the sick shall be isolated, the period of separation from the usual environment is so short that no great injustice is done if a person be detained on what later appears to be doubtful or insufficient grounds.

In leprosy, however, if an error be made, the most serious consequences may result to the individual who is deprived of his liberty, and to the community which is obliged to support him.

The problem, it appears, differs materially from that of other contagious diseases in another and important respect. So far as concerns most other diseases requiring isolation, the question is settled as soon as what we may call the medical diagnosis is made. There is some difference of opinion among students of leprosy as to whether any such uniform procedure is applicable to this disease. Perhaps a comparison might be made with tuberculosis, a disease which ordinarily we do not isolate, but which presents certain points of analogy pertinent to the present subject. Cases of pulmonary tuberculosis with "open" lesions are generally regarded as a menace to persons with whom the consumptive associates, un-

* Read by title at the Fifteenth Annual Meeting of the American Society of Tropical Medicine, New York, June 5, 1917.

less appropriate measures be taken. On the other hand, lymphatic or articular disease due to the tubercle bacillus is not regarded as a condition which calls for special precautions. The status of the two types of infection with the plague bacillus is also analogous. In one, the pneumonic type of the disease, we have a highly contagious virulent disease, while in the other, the bubonic type, the danger of infection spreading directly from the patient is practically *nil.* In both of these examples, cited by way of analogy, the difference, of course, is simply that in the one type of the disease the causative microörganisms leave the patient, while in the other they remain in his body. Many cases of leprosy may be compared to the types of the diseases mentioned, which are, generally speaking, of no sanitary importance.

While we are ignorant of the mode of conveyance of leprosy, we assume that in some manner the bacillus passes from the leper to a well person. Whether the transfer be direct or indirect, we do not know. It is well established that there are certain cases of leprosy in which the bacilli are found only in such locations in the body as preclude their escape; such, for instance, as the pure nerve cases. Many, perhaps the majority, of leprologists consider these cases as of little or no danger. The following opinions are of interest:

J. Ashburton Thompson *(Lepra,* 1905-1906, Vol. VI, p. 247), according to the report of the Board of Health on leprosy in New South Wales for the year 1905, apparently thinks that nerve leprosy is not a menace.

Dehio *(Lepra,* 1903-1904, Vol. IV, p. 8) quotes with approval the opinion of Lonk, that "maculo-anesthetic leprosy" is not itself, or only in a slight degree, contagious."

A. Blaschko (Abstract, *Lepra,* 1900, Vol. I, p. 149) says "it can be concluded that the non-tuberculous, the so-called anesthetic leprosy, can hardly ever be considered a source of infection; * * * the matter of their phlegmons and ulcers is free from becilli and the patients are, therefore, comparatively harmless to their surroundings."

F. M. Sandwith (Abstract, *Lepra,* 1907, Vol. VII, p. 263) considers as especially dangerous only those in which the bacilli can gain access to the outer world with discharges from the nose, the pharynx or from ulcers.

We must, of course, always bear in mind the fact that, for

reasons which are by no means clear, there are localities in which leprosy shows no tendency to establish itself as an endemic disease. For example, the numerous Scandinavian lepers who have lived in our Northwestern States have failed to establish a focus of the disease; other examples are afforded by certain large cities in temperate climates, such as London, Paris, Berlin and New York; each of these has at all times a considerable number of lepers, yet the disease has not been established in any of them.

We find that, for sanitary administrative purposes, the term "leper" has been defined in India as follows: "Any person suffering from any variety of leprosy in whom the process of ulceration has commenced." This would include trophic ulcerations in nerve leprosy, in which bacilli would probably not be found, as well as ulceration of nodules, which might be expected to show bacilli. Parenthetically, it may be remarked that often the bacilli are hard to find in ulcerations of nodular cases.

Scandinavian writers insist upon the special danger of nodular cases; for example, Saem Bjarnhjedinsson *(Lepra,* 1909, Vol. VIII, Suppl., p. 397) states that since 1909 all tuberous cases are required to go to the asylum "as long as there is any available room."

The New York City Department of Health expresses the opinion (Weekly Bulletin, 1915, U. S., Vol. 4, p. 352) that "when the leper has no open lesions and no discharge from the nose it is safe for him to be at large." This refers to New York City.

The laws of the various States which have statutes covering leprosy fail to discriminate between cases that are dangerous and those that are not. In Hawaii the Board of Health passes on each case, basing its action upon recommendations of a board of medical examiners.

The clinical diagnosis of leprosy is often difficult. Even in communities in which the disease is prevalent, and where, presumably, physicians have ample opportunity to become acquainted with it, disagreements frequently occur. It is universally admitted that a positive microscopical finding warrants the diagnosis of leprosy. It seems to me that we should be careful even about this. When one secures from a lesion, or from nasal mucus, a smear which shows an abundance of typically stained and typically grouped bacilli, there is practically no ground for difference of opinion, though there is on record a case of infection with the avian tubercle bacillus in which the microscopical appearance of the organism was

indistinguishable from that of leprosy, and indeed the clinical picture was suggestive of that disease. But it is in cases in which the bacilli are very scanty that difficulty occurs; a single acid-fast object, even if it looks precisely like a leprosy bacillus, should not be deemed sufficient to settle the diagnosis. Even if several are found, especially if they are not entirely typical, we should be cautious. But it is particularly in relation to smears from the nose that we need to be careful. It has long been known that acid-fasts may be found in the nose of healthy persons. These are usually much more plump than the leprosy bacillus, and ordinarily they should cause no confusion, but occasionally they are indistinguishable from Hansen's bacillus.

A case is recalled in which a physician of large experience in the diagnosis of leprosy allowed himself to be led into error by the finding of large numbers of acid-fasts in the nasal discharge of a case in which the clinical findings were equivocal. A further study of the case led to the correction of an error which would not have occurred had due caution been exercised in the interpretation of the examination of smears from nasal secretion.

In early cases it may be necessary to defer a positive diagnosis for several months, until the acid-fasts can be demonstrated. It is not uncommon for leprologists of large experience to decline to commit themselves to a diagnosis pending the evolution of doubtful skin lesions, such as leucodermic areas and erythematous or pigmented spots. On the other hand, nodules, no matter how early, and the circumscribed, slightly elevated fawn-colored patches, amost invariably yield abundant proof upon microscopic examination.

The technic of microscopical examination which the writer has found of most use is as follows: After cleansing the nodule or other area from which it is desired to make a smear, the area is seized between the thumb and forefinger and squeezed until it is bloodless; maintaining the pressure, with a safety razor blade held in the other hand, the operator makes a small incision in the bloodless area.

The razor blade is then inserted into the small wound, held at an angle to the incision, and the sides of the latter scraped, the material transferred to the slides, stained, and examined in the usual manner.

As has been said, for all practical purposes, characteristic microscopical findings clinch the diagnosis, and there are many cases in

which the clinical diagnosis is so plain that a microsocpical examination seems superfluous; even in these, however, it should not be omitted.

Serological tests have been proposed by numerous writers. Antigens made from acid-fast bacilli and from leprous nodules show positive. Complement fixation results with a high percentage of leprous serum and appears to be given but rarely in other conditions. They, however, can be regarded as corroborative only. It is well known that a positive Wassermann is given by a large proportion of lepers, and it is a fact, though less well known, that many give positive complement fixation with old tuberculin used as antigen. If the patient gives both the Wassermann and the reaction with tuberculin (complement deflection), the evidence that the disease present is leprosy is strong. It has been applied especially in differentiating syphilis from leprosy. As is true with most diseases, the difficulties in diagnosis are encountered chiefly in the early mild or atypical cases, and in these the laboratory aids to diagnosis are less likely to be of use.

We sometimes hear of histological evidence of the presence of leprosy. Unless sections contain acid-proof bacilli it appears unlikely that they would be of much value. The matter of diagnosis resolves itself apparently into the finding of acid-fast bacilli. If these are absent, while the case may be leprosy, it is probably not in a stage or of a type dangerous to the community, and from a public health point of view it is, therefore, of little consequence. Sometimes we must be guided by other than purely public health considerations. Thus, with nerve leprosy, in which we are unable to detect bacilli and which we regard as not a menace, the patient may also suffer from tuberculosis, or have extreme ulcerations, or may be indigent. Such a case may, as a matter of public charity, be isolated. If conditions change so that, at a later date, it seems desirable to release such a case, there is no objection to so doing.

Thus far I have had in mind more particularly the circumstances surrounding a case when the question is one of commitment to a leper asylum. Sometimes we must consider the subject from the point of view of discharging a patient from an asylum. Here we approach the question with the knowledge that the patient has at some time in the past been clinically, and probably microscopically, positive, but I see no ground for modifying the requirement that such cases shall be released if they prove to be negative micro-

scopically. It is likely that such cases will be scrutinized even more carefully than those that are to be passed upon for commitment. Microscopical preparations will be made and, if records are available, the site from which they are to be made may be chosen with reference to previous findings. It is sometimes difficult to convince ourselves that a case clinically practically negative should remain in isolation by reason of the presence of a few acid-fasts in a single one of many smears, but we must have some standard, and the presence of even a few characteristic bacilli is not to be ignored.

There are a few cases in which, in spite of the most complete examination, clinical and microscopical, it is impossible to say that a given case is leprosy. Under such circumstances, the only safe rule to follow is to give the patient the benefit of whatever doubt exists. This is one phase of public health within which the rule to "give the public the benefit of the doubt" should not apply. In non-endemic foci the missed case does no harm, and in endemic foci there will always be a good many undoubted lepers at large, and an additional doubtful one will be of no material consequence.

In conclusion, I may say that the criticism may be made that I have emphasized the laboratory aspect of the subject and minimized the clinical. This is true, but it is believed that there are many cases in which laboratory methods must be resorted to in order to differentiate cases of public health importance from those which are of no moment.

NOTES ON GRANULOMA VENEREUM.*

By HENRIQUE DE BEAUREPAIRE ARAGAO, M. D.
Institute Oswaldo Cruz, Rio Janeiro.

The granuloma venereum, synonym with granuloma of the pudenda, groin ulceration, serpiginous ulceration of the genitals, granulome ulcéreux des organes génitaux, etc., was first noticed in India (1882) and afterwards in many other generally tropical or subtropical countries. Quite exceptionally some cases of people who never lived in warm countries were discovered in Europe.

In North America several cases have been found, while in South America granuloma exists undoubtedly on the east coast from the Guayanas to the Argentine Republic. In Brazil the cases were not

* Read by title at the Fifteenth Annual Meeting of the American Society of Tropical Medicine, New York, June 5, 1917.

recognized, and generally confounded with venereal or other diseases until, in 1909, F. Terra, professor of dermatology in Rio, published the first case, with the diagnosis of granuloma. Prof. Eduardo Rabello found, in 1912, Donovan bodies in smears of the same case. In the same year, together with the late Gaspar Vianna, I found occasion to study several cases of granuloma, verifying always the microbe first seen by Donovan, and studying its nature. We also discovered a new and very effective treatment by intravenous injection of tartar emetic.

The clinical forms of granuloma observed in Brazil are similar to those described from other countries: Torpid serpiginous ulcers, situated on and around the genital parts and lasting many years without tendency to spontaneous healing. A localization in the mouth is rare, but has been seen in Brazil also.

Etiology.—Views on the etiology of granuloma have varied a good deal. While on one side it has been considered as a manifestation of tuberculosis, syphilis, frambœsia or leishmaniasis, on the other hand it was attributed to a specific agent, a bacterium, a treponema, a fungus, etc. Of all these microbes, only one is constantly present, and by its general qualities may justly be considered as the cause of the disease. It was first found in 1905 by Donovan, and became known under the name of Donovan's bodies; later on it was well described by Siebert and Flu, who considered it belonging to the bacteria with capsules. In Brazil this microbe was found in all cases of granuloma. Together with G. Vianna I studied its morphology, and we collected it in a separate group under the name Kalymmato bacterium granulomatis. It does not take the Gram stain and is only weakly stained by the common anilin dyes. Its characteristics only appear well with Geimsa's stain, which shows the surrounding capsule very distinctly. This capsule contains small, round or ovoid bodies in the shape of small cocci of about three-tenths of a micron, which afterwards stretch and appear as small rods of one-half to one micron. On dividing, they show a dumbbell form, and the constriction increases till a complete separation occurs. The germ then appears under the form of a diplococcus; the elongated capsule soon gets strangulated in the middle and finally the products of the complete division separate. (Fig 1-5.)

A special characteristic of the germ of granuloma is its localization in the tissues, where it apepars principally in the protoplasm

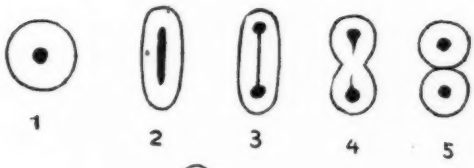


Fig. 1

of certain cells, and, by its multiplication, assumes a very characteristic aspect (Figs. 1, n° 6 and 7). In sections, free germs are generally in smaller number than those in the interior of leucocytes and cells of the connective tissue (Pl. 1, fig. 7). The plasma cells, though very abundant in granuloma tissues, never show germs in their plasma, as Flu asserted.

Inside of the cells the germs sometimes appear without their capsule. They form at first a zoöglea of varying size near to the nucleus, similar to chlamidozoa, in their appearance, as Flu pointed out (Pl. 1, fig. 1-4). Afterwards the elements of this zoöglea separate, showing now the characteristic capsules (Pl. 1, fig. 1-6). The infected cells first become hypertrophical, the nucleus being dislocated by the germs; afterwards they are destroyed. Often also the microbe degenerates in the cells and is reduced to fragments, leaving only the rest often impossible to recognize.

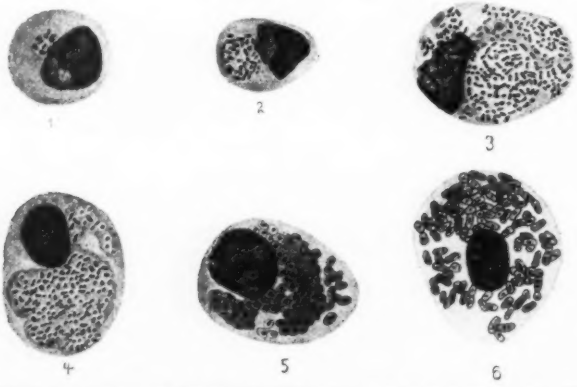
The germs of the granuloma are found over the whole extension of the ulcers, but mostly in the zones where progression takes place.

In culture experiments we first obtained in three granuloma cases, by the use of Sabouraud's medium, a capsule bearing bacterium, very much alike to the bacterium of Friedlander in morphological, cultural and pathogenical qualities. For this reason we first had some doubts about its identity with the tissue germ. It grows well on all the laboratory media, and when injected in guineapigs, rabbits or marmosets, kills them in twenty-four hours under profuse septicemia. Dr. H. Araujo obtained the same microbe five times more, even from not exposed tissues, which increases the value of these results.

These, however, require still further confirmations, and the importance of the cultivated bacterium can only be established by more careful studies.

Inoculations of laboratory animals with the tissues of granuloma failed to produce the disease.

TREATMENT.—The dfficulty of curing granuloma is generally admitted. Many treatments have been tried, as cauterization, mer-



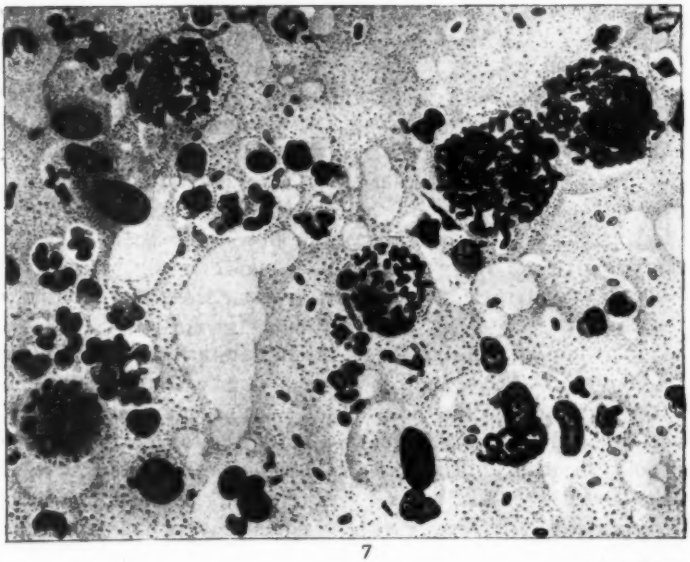


PLATE 1.

cury and all the various arsenical preparations, including salvarsan an neosalvarsan. A surgical treatment by extirpation can only apply to cases without extensive localization. Up to a certain time the only treatment giving favorable results was the use of X-rays, which depends on complicated and not always available installations. For this, G. Vianna and I experimented with all kinds of treatments, including vaccinotherapia, but without result, until we resolved to try the injections with tartar emetic, which had proved so efficacious in leishmaniasis. With this treatment we obtained very good results by rapid cicatrization of the lesions of granuloma.

We use the emetic in the same form as in leishmaniasis, in

PLATE 2.

intravenous injections of ten to twelve c. c. of a one per cent solution in sterilized physiological salt solution by infiltration. They are generally well tolerated; only occasionally the patients complain of cough and passing rheumatoid pains, which do not interfere with the treatment. The number of the injections varies according to extension of lesions and rapidity of cicatrization. When the lesions are healed the treatment must not be interrupted, but continued for another ten or twelve injections, in order to warrant the cure. It is very advisable to give another series of twelve injections two months after the first treatment, to prevent returns of the disease, which are pretty common when such precautions are not taken.

In Brazil the cases treated in this way already pass the number of fifty, and this method is already used in other countries where the disease exists, like Argentine, in Uruguay, Australia and England, the results being very good. In cases with superficial lesions the combination of emetic with X-rays is very advisable; unfortunately its general use is prevented by the rarity and expensiveness of the installations.

The accompanying photographs illustrate the brilliant results obtained in two of our granuloma cases by injections of emetic in one per cent solution (Pl. 2, figs, 1, 2, 3 and 4).

SOME OBSERVATIONS ON THE DYSENTERIC ENDAMŒBÆ.*

By HENRIQUE DE BEAUREPAIRE ARAGAO, M. D.
Institute Oswaldo Cruz, Rio Janeiro.

I.

NUCLEAR AND PROTOPLASMATIC ALTERATIONS OF THE ENDAMŒBÆ.

The typical nucleus of a dysenteric endamœba is vesicular, wholly spherical and limited by a slender membrane with double outline. In the inner part of this nucleus, near the membrane, there is a lining of fine granules or very delicate chromatic masses, and, at the centre, a small karyosome varying a little in size, sometimes showing a centriole, separated from the rest of the nucleus by a small, clear halo. A delicate net of linine, the meshes of which contain normally less chromatic granulations than the zone

* Read by title at the Fifteenth Annual Meeting of the American Society of Tropical Medicine, New York, June 5, 1917.

near the membrane, extends from this halo to the periphery of the nucleus.

In this normal structure various modifications may appear, due to various causes, the most important being those which diminish the vitality of the protozoon, as, for instance, the age of the parasite or an insuitable medium due to inherent conditions or the influence of the therapeutic agents. Such changes are rather characteristic, and appear separately or together, in the nucleus and in the protoplasma, allowing, on first sight of a preparation, to affirm that the parasites are not in the best condition of life.

The nuclear alterations of the endamœba regard the form, the chromatic elements, or both, at the same time. In the first case the nucleus presents itself more or less deformed, semi-lunar, subtriangular, etc., with loose membrane and less distinct—in short, with the aspect considered by Schaudinn—as typical for the *Endamœba histolytica,* and so frequently met with in old cases of dysentery. There is not yet any alteration in the quantity of nuclear chromatin, the nuclear modifications being limited to deformation due to diminished inner tension.

There are still other modifications, accompanied by a notably altered relation of nucleus and plasma. The chromatic part of the nucleus increases, while the amœba shows different aspects. One of the more common types of this nuclear modification is characterized by an abnormal increase of the peripheric chromatin in the nucleus, which, instead of the usual small space, occupies now the whole halo existing between the karyosome and the nuclear membrane, and covers the trabeculæ of the linin. Other times the nuclear chromatin, instead of spreading through the nucleus, forms more or less regular and thick masses, which, lining very regularly the inner side of the membrane, remind of the aspects described by Schaudinn as the first stages of multiple division of the nucleus in the *Endamœba coli,* and seen also by Hartmann in *Endamœba tetragens.* These chromatic masses often vary in size and occupy an irregular position in the nucleus of the endamœba.

The endamœbæ, with nuclear alterations, sometimes show also more or less distinct modifications of the protoplasma. The most common consist in having the protoplasma filled with vacuoles of various sizes and without or with very few red globules inclosed; bacteria increase in the same degree as the degeneration of the amœba. The movements of such parasites are less lively, the differ-

ences of the ectoplasma and the endoplasma being less visible, principally when the amœbæ are at rest.

The just exposed nuclear and protoplasmatic conditions differ so much from those normally seen in amœbæ that one might take them for different species, as Schaudinn and Koidzumi did, who distinguished the *Endamœbæ histolytica* and *nipponica* on such characters. One might also confound, easily, degenerated amœbæ with epithelial cells and very alterated leucocytes found in dysenteric stools, because these elements, in fresh preparations, resemble immovable amœbæ, and, after staining, look very much like degenerated forms of the parasites. Owing to this likeness many authors mistook for degenerated amœbæ epithelial cells and dead leucocytes showing fragmented nucleus and general aspect of protoplasmatic masses with spherical granulations of various sizes, isolated or in groups.

II.

Pseudo-cysts of Endamœba Histolytica.

To-day most of the authors admit that the vegetative stages of the *Endamœba histolytica* represent only a degenerated form of the *Endamœba tetragena,* but there are still doubts as to the small cysts of that parasite, the existence of which may not be denied, in view of the minute description given by its discoverer, which, according to Hartmann, is still a strong proof for the existence of that endomœba as an autonomous species.

In our opinion, however, Schaudinn mistook for cysts of the *Endamœba histolytica* the small secondary cysts of *Blastocystis hominis,* the so frequent parasite of the intestine of man and of many other animals. This is not the only confusion caused by the cysts of *Blastocystis,* for many times and by many authors they were taken for cysts of trichomonas, trichomastix and other intestinal flagellates. Not long ago Alexieff asserted its vegetable nature, and this idea seems to become generally accepted.

We believe to have succeeded in seeing the initial forms of this fungus in stools, in which they are represented by cells constituted of rounded, oval or elliptical mass of protoplasm, with excentric nucleus. The nucleus is spherical, without distinct membrane, and often with the chromatin divided in two portions—one compact and very abundant in these initial forms, the other one less dense

and not so strongly colorable than the first portion. In the protoplasma of this initial form appears soon a mass of thick substance, little sensible to staining, which, increasing in size, forms afterwards the central body described by Alexieff in the primary cysts of the blastocystis. This central body is, in our opinion, formed by reserve substances.

By the increase of the central body, which becomes spherical, and with the growing thinner of the surrounding layer, is formed the so-called primary cyst, which is surrounded exteriorly, in the shape of membrane, by a gelatinous lining, sometimes little distinct. In the primary cyst the nuclei are multiplied by successive division and are scattered all over the surface of the cyst.

Finally, these nuclei are isolated, surrounded by a small portion of protoplasma, around which appears a thick membrane with double outline, at the expense of the reserve substances accumulated in the interior of the primary cyst, and which, little by little, are disappearing. On the surface of the primary cyst in such way appear minute, bud-like secondary cysts of a diameter of five microns, seven microns, with resisting walls and absolutely alike to the forms described by Schaudinn as cysts of *Endamœba histolytica.*

We had already noted such cysts in all the phases of its formation in stools of frog, and lately having found them also in human stools, we became convinced of their probable relation with the forms described by Schaudinn.

III.

CYSTS OF THE ENDAMŒBÆ TETRAGENÆ AND COLI.

For many times the distinction between the cysts of the two endamœbæ was held as very easy—the cysts of the *Endamœba dysenteriæ* being very small (seven microns, fourteen microns), with never more than four nuclei and containing many chromidia, and the cyst of the *Endamœba coli* being larger (more than fourteen microns), containing few chromidia, and eventually eight nuclei. Hartmann and Whitmore noted lately the presence of cysts of *Endamœba coli* with twelve and sixteen nuclei, and, on the other side, Swellengrebel, Huenhr and Schiess refer the existence of *Endamœba tetragena* with eight nuclei in case of amœbic dysentery, where the presence of *Endamœba coli* never has been observed. We, too, observed lately cases of amœbic dysentery, verified by infection of the animal, which, during the acute stage of the disease,

never presented *Endamœba coli* or its cysts, and, on the entering of the parasites into the phase of encystment, showed cysts with eight nuclei. We do not see why the formation of octonucleated cysts in the *Endamœba tetragena* should not be admitted, in view of the certain, although exceptional, existence of forms with twelve and sixteen nuclei in the *Endamœba coli.* In both the parasites they are abnormal forms of the nuclear division in the cyst of the endamœba, as happens, analogically, in other unicellular beings. For instance, in the *Blastocystis,* for which the normal formula of division of primary cyst is eight, not rarely such cysts occur with up to sixteen secondary cysts. The matter, in our opinion, is worth a most careful study, as the regularity of the nuclear division in the cysts of the endamœbæ has been so firmly established as one of the most secure elements of distinction between the two parasites of man.

There is still another question we want to refer to—that is, the presence of chromidia or siderophilous bodies in the cysts.

Such formations have been considered by some authors as constituted of substance of nuclear origin, by others as reserve substances, and, finally, as substances of indeterminated nature. Schaudinn, for instance, attributed to these formations a very great influence upon the constitution of the cysts of the *Endamœba histolytica,* while in the *Endamœba coli* they were only considered as substance of vegetative nature, although of nuclear origin.

We believe that the chromidia or siderophilous bodies are reserve matter, accumulated in the interior of the endamœbæ on occasion of the encystment and destined to be consumed by the parasite during the phases of nuclear multiplication, and therefore disappearing completely or being mostly used up, when the cysts attain four or even eight nuclei.

That is our interpretation of the chromidia of the endamœbæ. They are simple reserves of nutritive material destined to the consumption of the parasite during the phases of encystment. The appearance of the so-called "cromidia" is a sure indication of the beginning encystment of the endamœbæ. They are characteristic of the phases of the encystment, as are also the reduction of size of the protoplasma and the expulsion of the erythrocytes, bacteria and other substances contained in the protoplasma of the parasitical endamœbæ.

IV.

NOMENCLATURE OF THE ENDAMŒBÆ OF MEN.

Previous to the discussion of this matter we want to declare that we adopt the generic denomination *"Endamœba,"* preferring it to the denomination generally adopted of *"Entamœba,"* owing to a matter of scientific priority.

Really, as early as 1879, Leidy created the expression *"Endamœba"* for the amœbic parasites, the type of which is the *Amœba blattæ* (Buetschli), while the second designation was only given in 1897 by Casagrandi for the same parasite. More recently, in 1911, Chatton and Lalung-Bonnaire proposed the division of the genus *Endamœba,* the *Endamœba blattæ* figuring as type of the genus, while the genus *Loschia* was established for the parasites of man, and even a sub-genus *Viereckia* (Chatton), for the *Endamœba tetragena.*

The division of the endamœbæ into these new genera does not seem acceptable. As Hartmann says very well (incontestable authority in this matter), the difference of the nuclear structure seems to be very great when we compare only the nucleus of an *Endamœba blattæ* with one of the *Endamœba tetragena,* but becomes wholly worthless if we examine the nuclei of the different known endamœbæ, and even when we establish a careful comparison between the different muscular forms of the two endamœbæ. Such a comparison shows to the observer at the first glance the existence of intermediate phases between the apparently so different forms. Therefore, until a more thorough observation of the cycle of the parasites of man and of cockroaches authorizes a definite separation, we believe that they are to be included in the same genus of *Endamœba.*

Not less complicated is the question of the specific denomination of the endamœbæ parasites of the human intestine.

The publication of the classic work of Schaudinn in 1903 seemed to give a complete and definite solution to the question. The well-known investigator distinguished at that time two species of endamœbæ in the human intestine, calling the parasite with pathogenic propriety *Endamœba histolytica,* n. sp., and identifying the species without this propriety as the *Endamœba coli* (Loesch). At the same time, Schaudinn published a study on the cycle of both the parasites. Some years later, in 1907, Viereck, having found an *Endamœba dysenterica* with cystic forms different from

the forms described by Schaudinn for the *Endamœba histolytica,* created a new species, classifying it as *Endamœba tetragena,* and Hartmann, a year later, having also observed vegetative forms of a parasite different from analogous forms of *Endamœba histolytica,* called it *Endamœba africana.* It did not take much time to recognize the identity of the *Endamœba tetragena* Viereck with the *Endamœba africana* Hartmann, the first name, therefore, prevailing. For the same reason, the *Endamœba schaudini* Lesage is to be considered as synonym of the *Endamœba tetragena.*

Once the corrections made, two known species of pathogenic endamœbæ remained: The *histolytica* and the *tetragena,* and a saprophytic species called *Endamœba coli.* In the course of time it was verified that the cases of dysentery produced by the *Endamœba tetragena* exceeded greatly the cases caused by the *Endamœba histolytica,* the geographic distribution of which shortened always more, contrary to what was expected. For instance, in the Asiatic amœbic dysentery, which was thought to be caused by the *Endamœba histolytica,* the *Endamœba tetragena* was little by little recognized as nearly the exclusive causal agent. Owing to these facts, Hartmann resolved to revise the matter carefully and to study the material of the deceased Schaudinn, which had passed into his possession.

Hartmann recognized that most, if not all, of the preparations of Schaudinn mentioned as being *Endamoœba histolytica* contained *Endamœba tetragena,* and that the normal forms of this parasite had been identified by Schaudinn as being *Endamœba coli.* It did not take long before there appeared several confirmations of this opinion, and the authors indicated the frequent presence in the stools of dysenteric people of these federated forms of *Endamœba tetragena,* by which Schaudinn had described the *Endamœba histolytica.*

From the exposition of the two first parts of this paper on the nuclear aspects and on the process of encystment seems the result that there does not rest any doubt as to the absolute identity of *Endamœba hystolitica* and *tetragena,* which are to be considered definitely, one as the normal form, the other as the degenerative form, of one and the same parasite prevailing, as older the denomination of *Endamœba histolytica,* and the denomination of *Endamœba tetragena* becoming its synonym.

There remains still to discuss whether the denomination *Endamœba histolytica* prevails on all the other denominations. The

result of clinical and microscopical observations and the experiences on animals show a complete unicism concerning the syndrome of endamœbic dysentery, which is caused all over the world by the only species of endamœba. Therefore, still, according to the rules of scientific priority, is to prevail on the predomination of *Endamœba histolytica,* the name of *Endamœba dysenteriæ,* given in 1891 by Councilmann and Lafleur to the parasite cause of the dysentery. But, as concerning the question of priority, we cannot but take to the older designation, it is only fair to give to *Endamœba dysenteriæ* or *Endamœba histolytica* the denomination of *Endamœba coli,* created primitively by Loesch.

Really Loesch described in 1875 his first *Amœba coli* of an absolutely typical case of dysentery, with many characteristic endamœbæ in the stools, which possessed the absolutely decisive character of their specificity, for they showed themselves pathogenic for the dog. Nor does the fact matter that Loesch observed his case of dysentery in Russia, for we know that not only there, but also in nearly all the countries of Europe, there have been cases of amboebic dysentery, and that sometimes, in no small number, as indicates the voluminous literature on this matter.

It is a great pity that the authors who, after Loesch, occupied themselves with the matter, did not take into consideration the so precious characters of the amœba described by him and gave new denominations to it, or did take it for the inoffensive endamœba of the human intestine, as Schaudinn still did in 1903. Brumpt criticizes rightly the Orientation of the German scientist, although he does not advise to modify the aspect of the question on account of the profound alterations the denomination would cause.

It is the more unjustified to stick to this error, as the work of Loesch deserves much praise for having been made at a time when investigations of that kind, owing to the existing difficulties, represented an extraordinary and very meritorious effort. We are very well aware that the commutation of name of the *Endamœba dysenteriæ* into *Endamœba coli* will alter the nomenclature, but there should preponderate that many other modifications of this kind have been made in classic designations (ankylostomum instead of uncinaria; plasmodium instead of hemamœba, etc.), in obedience to the well-justified rules of priority, without taking into consideration inconveniences of the moment.

It still remains to know how to denominate the comomn endamœba of the human intestine, known as yet by the name of *Enda-*

mœba coli. To this parasite, in our opinion, should be applied, as being older, the denomination of *Endamœba intestino-vulgaris* (Quincke and Roose, 1893).

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COMMUNICATIONS

OUR STATE BOARD OF MEDICAL EXAMINERS.

By E. M. DUPAQUIER, M. D., New Orlean.

Just a word from a friend, one of the Old Guard, before he retires from the firing line.

Very few people realize the importance of our State Board of Medical Examiners. Of course, only those who operate the Board's machine know the intricacies of its mechanism. As the interpreter for the Board, of examination papers in French, Italian and Spanish, I know a few things that ought to be told again and again, *pro bono publico.*

The object of the Board—namely, to protect the public and the profession against the "unfit"—must be borne in mind constantly by everybody; and, to carry out the Board's purpose thoroughly, everybody must know it, is a difficult task. But the Board's function can be facilitated.

Because, by instinct and by training, I rely on my personal efforts to think, speak and act in my own independent way, like the Old Covenanter, satisfying my conscience first and going forward, I sincerely believe in the genuine American spirit of individual effort and resourcefulness, but I yield to reason and believe, too, in concerted action. So, after all, I regret to see our boards in general—individually able—lack system, organization to harmonize individual efforts and produce effective team-work.

Most of our boards, like our committees in all lines of activities, are too "fussy" or too "slow." They limp like cripples, wasting time and money, two great values wrongly appropriated. A close friend of mine, who knows more than I do, told me that all this was due to the pin-heads, the swell-heads, the bone-heads, and dead-heads, that play the grand game of politics, and they obstruct it and they spoil it, and they lower it to a peanut-tossing.

It is a fact that some members of our Legislature will meddle in problems out of their line, such as those of education, and Boards of Medical Examiners are essential factors in the betterment of medical education. The men appointed on the Boards are most willing and able to do their work thoroughly, because, nowadays, politicians have better material to select from; but the Legislature, as blind as a six-months' fetus, will not appropriate the money needed to maintain the Board in a healthy and vigorous condition; money is good nourishment.

I hope our wise young heads will do something to get the necessary money for our State Board of Medical Examiners to work efficiently. Too much is left to the individual effort and sacrifice to do the right thing; that is wrong. Our Boards must be organized firmly. No *pro tem.* executive officer, no absentee member, no vavancy must be tolerated any longer.

The result of this lack of a solid organization is hesitation in action, and lack of confidence in aggressiveness, of course, cripples the work of the Board. Some of our wise young heads will say: "Old man, you are singing an old tune." Sure; but some of these old tunes are good to sing again and again. Right now, much to your moral well-being, don't you sing or whistle, every day, these old tunes, the "Star-Spangled Banner" and "La Marseillaise"? Keep them up, youngsters!

A CORRECTION.

Editors New Orleans Medical and Surgical Journal:

On page 252 of the September issue of the Journal I notice that Dr. Nelson, in discussidng Dr. W. M. Perkins' paper, made the following comment: "I have heard Dr. Cohn, of New Orleans, in 1913, say he had put on Lane plates in compound fractures, and they got well."

Some one else might have made the statement; I certainly did not.

Will you kindly correct the error in a subsequent issue of the Journal, and oblige, sincerely yours, Isidore Cohn.

MEDICAL SECTION, LOUISIANA STATE COMMITTEE OF NATIONAL DEFENSE.

(P. O. Box 778, New Orleans, La.)

BULLETIN II.

The Medical Section of the State Committee of National Defense would call attention to the members of the medical profession who have joined the Medical Reserve Corps as shown in the list below. These names are of those who have been recommended for commissions with the ranks as indicated. Those who have not accepted, and who may have declined the commissions, or those who have been returned or honorably discharged, should not appear on the active list, and these should notify the Chairman at once, giving the status of their commissions. *If they are still holding the commissions* without any action *they are doing an injustice to themselves* and are retarding the work of the Surgeon General's office. If hesitating for want of advice, this may be promptly received from or thru the Chairman of the Medical Section.

LOUISIANA MEDICAL RESERVE CORPS.

(The asterisk (*) indicates active duty so far as known. Others may be on active duty, but the Committee has not been informed.)

	Rank.
Alexandria.	
*Cappel, Jack T.	1st Lieut.
*Cappel, Marvin	1st Lieut.
*Gremillion, C. J.	Captain
*Rand, Paul King	1st Lieut.
Randolph, Robert L.	1st Lieut.
*Schultz, Edwin W.	1st Lieut.
*Scott, Warren F.	1st Lieut.
Allendale.	
Lambeth, Walter P.	1st Lieut.
Amite.	
Adams, James Moore	1st Lieut.
Angie.	
McNeese, William T.	Captain
Athens.	
Atkins, William L.	1st Lieut.
Baton Rouge.	
Dougherty, John Allen	1st Lieut.
*McKowen, John	1st Lieut.
McVea, Chas. (Pres. Examining Board M. R. C.)	Captain
Robert, James John	Captain
Tucker, James Arthur	1st Lieut.
Whitaker, Edward V.	1st Lieut.
Belcher.	
Henderson, Walter F.	1st Lieut.
Blanchard.	
Doles, Howard P.	1st Lieut.
Bogalusa.	
Alford, Oliver W.	1st Lieut.
Bossier.	
Whittington, A. C.	1st Lieut.
Bourg.	
Parker, Prentiss E.	1st Lieut.
Bunkie.	
Davis, David Benj.	1st Lieut.
Matthews, Edgar S.	1st Lieut.
Buras.	
*Ballowe, Hewitt L.	1st Lieut.
Burrwood.	
*Trepagnier, Dalton H.	Captain
Clarks.	
King, Brinsfield	1st Lieut.
Colfax.	
Chapman, John S. C.	1st Lieut.
Sherrill, J. Johnston	1st Lieut.
Columbia.	
Sherman, Dollie O.	1st Lieut.

Rank.

Crowley.
Raney, Ralph B.....1st Lieut.
DeRidder.
Turner, S. O.....1st Lieut.
Elizabeth.
*Gaulden, Charles L.....1st Lieut.
Elm Grove.
Crow, Harper L.....1st Lieut.
Ferriday.
Maxwell, Victor W.....1st Lieut.
Fullerton.
Talbot, M. W.....1st Lieut.
Gilbert.
Gill, D. Denson.....1st Lieut.
Glenmora.
Reid, William E.....1st Lieut.
Gonzales.
LeSeur, George B.....1st Lieut.
Hodge.
Mosely, Charles H.....1st Lieut.
Hosston.
Collins, Matthias C.....1st Lieut.
Houma.
St. Martin, Thaddeus I...1st Lieut.
Independence.
Alessi, Nicolo V.....1st Lieut.
Jackson.
Evans, T. Watkins.....1st Lieut.
Jena.
Coleman, James A.....1st Lieut.
Jonesboro.
Simonton, Edwin C.....1st Lieut.
Kelly.
Cracroft, Thomas B.....1st Lieut.
Lafayette.
Lee, George W.....1st Lieut.
Lake Charles.
Iles, D. C.....1st Lieut.
*Martin, John G.....Captain
Roy, T. S.....1st Lieut.
Watkins, Thomas H.....Captain
Lake Providence.
Hamley, William H.....1st Lieut.
Lecompte.
*Lett, Frank M.....Captain
Leesville.
Palmer, Neely McC.....1st Lieut.
Willis, Daniel O.....1st Lieut.
Locust Ridge.
Adams, James M.....1st Lieut.
Longville.
Miller, Erastus L.....1st Lieut.

Rank.

Melville
Williams, Lester J.....1st Lieut.
Merryville.
Windham, Robert E.....1st Lieut.
Monroe.
*Faulk, L. B.....1st Lieut.
Graves, James Q.....1st Lieut.
Hirsch, David I.....1st Lieut.
Montrose.
Kelly, John L.....1st Lieut.
Napoleonville.
Pugh, William W.....1st Lieut.
Newellton.
Evans, Ralph P.....1st Lieut.
New Orleans.
Ayres, Charles C. (Marine Hospital).....1st Lieut.
*Bahn, Chas. A. (Tulane Unit, Red Cross No. 24)..1st Lieut.
Barkley, Claude D.....1st Lieut.
*Bethea, J. A. (Medical Corps, U. S. A., in France)..1st Lieut.
*Bird, T. B.....1st Lieut.
*Bowie, E. R. (Touro Intern), Tulane Unit Red Cross, No 24).....1st Lieut.
*Bradburn, Muir (Tulane Unit Red Cross, No. 24...1st Lieut.
Brown, Frederick T.....Captain
Buffington, W. R.....1st Lieut.
*Burgheim, C. A. (Ft. Oglethorpe).....1st Lieut.
Calloway, Wm. O.....1st Lieut.
Carter, Charles S.....1st Lieut.
*Carter, P. J. (Tulane Unit Red Cross, No. 24)..1st Lieut.
Clark, S. M. D.....1st Lieut.
*Cronan, George A.....1st Lieut.
Dauterive, Henry J.....1st Lieut.
*Dicks, Jno. F. (Tulane Unit Red Cross, No. 24)..1st Lieut.
Dowling, Oscar, (State Committee of National Defense and Executive Committee, Medical Section).....Major
*Dyer, Isadore (President Examining Board, Medical Reserve Corps, and Chairman Medical Section, State Committee of National Defense).....Major
Edrington, N. K.....1st Lieut.

	Rank.
*Elliott, John B., Jr. (Director, Tulane Unit Red Cross, No. 24)	Major
*Fenner, E. D. (Tulane Unit Red Cross, No. 24)	Captain
*Ficklen, E. P. A. (Tulane Unit Red Cross, No. 24)	1st Lieut.
*Fortier, Lucien A.	1st Lieut.
*Genella, L. J. (in France)	1st Lieut.
*Gerson, G. R. (Charity Hospital Intern)	1st Lieut.
Gessner, H. B.	Captain
Gladden, A. H., Jr. (Charity Hospital Intern)	1st Lieut.
*Gondolph, H. J. (Fort Sam Houston)	1st Lieut.
*Graham, R. E. (Medical Corps, U. S. A., in France)	1st Lieut.
Griffith, Thomas H. D. (Marine Hospital)	Captain
*Guthrie, J. B. (Medical Department at Alexandria)	Major
*Halsey, J. T. (Adjutant, Tulane Unit Red Cross, No. 24)	Captain
*Huhner, E. J. (in Oglethorpe)	1st Lieut.
Humphreys, R. W.	1st Lieut.
Humphreys, S. B. (Charity Hospital Intern)	1st Lieut.
Israel, J. P.	1st Lieut.
*Jamison, S. C. (Tulane Unit Red Cross, No. 24)	1st Lieut.
*Jones, W. O'D. (Tulane Unit Red Cross, No. 24)	1st Lieut.
*Kearney, H. R. (Tulane Unit Red Cross, No. 24)	1st Lieut.
King E. L.	1st Lieut.
Kohlmann, Wm.	Captain
Kushner, L. Z. (Charity Hospital Interne)	1st Lieut.
*La Croix, Paul G. (Tulane Unit Red Cross, No. 24)	1st Lieut.
Landry, L. H.	1st Lieut.
Landry, O. W. (colored)	1st Lieut.
*Lanford, J. A. (Tulane Unit Red Cross, No. 24)	Captain
*Lee, Jesse W. (Jackson Barracks)	1st Lieut.
*Lemann, Isaac I. (Tulane Unit Red Cross, No. 24)	Captain
Levy, Lewis H.	1st Lieut.
*Lopez, L. V. J. (DeLeon Springs)	1st Lieut.
*Maes, Urban (Assistant Director, Tulane Unit Red Cross, No. 24)	Major
Mailhes, R. J. (Charity Hospital Intern)	1st Lieut.
*Martin, T. W.	1st Lieut.
Matas, Rudolph (Organizing Director Tulane Unit Red Cross, No. 24, and member of Committee of National Defense for Louisiana)	Major
*Mereaux, L. A. (Jackson Barracks)	1st Lieut.
Milholland, W. G. (Intern, Presbyterian Hospital)	1st Lieut.
Miller, C. Jeff (Chairman District Exemption Board and member Executive Committee, Medical Director State Committee on National Defense)	Captain
Murphy, D. J.	1st Lieut.
Newhauser, M. A.	1st Lieut.
O'Ferrall, J. T.	Captain
Page, J. H.	1st Lieut.
Parham, F. W. (Member State Committee on National Defense)	Major
Perdue, J. D.	1st Lieut.
Perkins, R. T.	1st Lieut.
*Perkins, W. M. (Member Examining Board, Medical Reserve Corps)	1st Lieut.
*Pratt, John G. (Charity Hospital Intern)	1st Lieut.
Reilley, W. H.	1st Lieut.
Reynaud, L. F.	Captain
Richards, W. T.	1st Lieut.
Samuel, E. C.	1st Lieut.
*Seemann, W. H. (Surgeon at Jackson Barracks, member Medical Section State Committee of National Defense)	Captain
*Sharp, Covington H.	1st Lieut.
*Smyth, John (Tulane Unit Red Cross, No. 24)	Captain
Souchon, Edmond	Major
Souchon, Marion S.	Major

	Rank.
*Terhune, Wm. B. (in France)	1st Lieut.
Tucker, I. N.	1st Lieut.
*Wall, C. K. (Tulane Unit Red Cross, No. 24)	1st Lieut.
*Weis, J. D. (Tulane Unit Red Cross, No. 24)	Captain
New Roads.	
Cazayoux, Joseph F.	1st Lieut.
Norwood.	
Mengis, Christopher L.	1st Lieut.
Oscar.	
*Major, Eric L.	1st Lieut.
Rougon, Francis F.	1st Lieut.
Pelican.	
Burdette, James C.	1st Lieut.
Plaquemine.	
Landry, Adrian A.	1st Lieut.
Poydras.	
*Dunshie, John F.	1st Lieut.
Rayville.	
Sartor, James C.	1st Lieut.
Selma.	
Adams, Isaac N.	1st Lieut.
Shreveport.	
Bodenheimer, J. M.	1st Lieut.
Dickson, George B.	1st Lieut.
Furman, Francis	1st Lieut.
Garrett, Brook C.	1st Lieut.
Heath, Arthur G.	1st Lieut.
Hunt, Randell	Captain
Lawrason, George B.	Captain
*Lloyd, Thomas P.	Captain
Mills, J. C.	1st Lieut.
Prudhomme, Peter W.	1st Lieut.
Ragan, Thomas	1st Lieut.
Ramsay, George A.	1st Lieut.
Rutledge, Clifford D.	1st Lieut.
Scofield, Harry W.	1st Lieut.
Wallace, W. (colored)	1st Lieut.
Willis, James C.	1st Lieut.
Willis, James G.	1st Lieut.
Slidell.	
Brazier, A. W. (colored)	1st Lieut.
Spencer.	
Wheelis, Allen B.	1st Lieut.
St. Martinsville.	
Fleming, Patrick H.	1st Lieut.
Trout.	
Zeagler, Allen J.	1st Lieut.
Ward.	
Whitley, Grover G.	1st Lieut.
Waterproof.	
Marion, Joseph	1st Lieut.
White Castle.	
Owen, Whyte Glendower	Major
Winnfield.	
Kelly, Daniel W.	1st Lieut.
Winnsboro.	
Pittman, John S.	1st Lieut.
Martin, Claude A.	1st Lieut.
Yelgar.	
Palmer, Alonzo T.	1st Lieut.
Zona.	
Jones, H. Varnado	1st Lieut.

Note.—Any correction will be welcomed by the Committee.

All additional Reserve Corps officers recommended will be published as soon as **official** report is received of such.

Any news of officers on duty, concerning their station or movements, will be published by the Committee.

NEWS.

A commission for examining soldiers in camps at Fort Sam Houston has been on duty since the middle of July, consisting of Drs. Edmond Moss, James C. Cole, Robert Bernhard, H. J. Gondolf, of New Orleans, and Robert A. Strong, of Pass Christian, Miss., all members of the teaching staff of Tulane University. A like commission will be organized and assigned for duty at Louisiana camps as soon as troops are assigned.

The Red Cross Base Hospital, Unit 24, organized by members of the Faculty of the School of Medicine of Tulane University and known as the "Tulane Unit," left on Tuesday, September 5, for Fort Oglethorpe, en route for France.

The following constituted the medical and surgical staff:

Majors John B. Elliott, Jr., M. R. C., Director; Urban Maes, M. R. C., head of the Surgical Division; Captains John T. Halsey, M. R. C.; Erasmus D. Fenner, M. R. C.; John Smyth, M. R. C.; Charles T. Chamberlain, M. R. C.; Joseph D. Weis, M. R. C.; Isaac Ivan Lemann, M. R. C.; John A. Lanford, M. R. C.; Lieutenants S. Chaillé Jamison, M. R. C.; E. P. A. Ficklen, M. R. C.; Charles A. Bahn, M. R. C.; Harold F. Kearney, M. R. C.; Paul G. La Croix, M. R. C.; Muir Bradburn, M. R. C.; Warren T. Scott, M. R. C.; Phillips J. Carter, M. R. C.; W. O'D. Jones, M. R. C.; C. K. Wall, M. R. C; E. R. Bowie, M. R. C.; S. King Rand, M. R. C.; G. E. Sandoz (Dental Reserve), A. Meynier (Dental Reserve). Captain B. B. Ballanfant, Q. M. C., U. S. A., is the Quartermaster in charge.

This unit has the distinction of being the first and only unit from the South going to the front. It leaves with complete equipment, full corps of nurses and non-commissioned personnel and with several ambulances donated by patriotic and generous New Orleans citizens.

Pay and Allowance of the Medical Reserve Corps Members and Other Service Conditions.

In making recommendation for original commission, age, professional attainments and previous military experience are the chief considerations in determining the grade in which the applicant should be commissioned.

1. The pay of the different grades is: First lieutenant, $2,000; captain, $2,400; major, $3,000.

When assigned to duty in a city (not in camp, thus not serving with troops) the assignment carries with it commutation of quarters: First lieutenant, three rooms; captain, four rooms; major, five rooms, at $12 per room; heat and light additional.

2. Acceptance of a commission in the Medical Reserve Corps automatically places your services at the disposal of the Surgeon General wherever he deems them most valuable, either in the United States or abroad.

COMMISSIONED FOR FIVE YEARS.

3. Acceptance of commission is for five years, unless sooner relieved from active duty on recommendation of the Surgeon General, when officers will be placed on the inactive list. Active duty in the present instance will naturally be for the length of the war plus four months, which will be required for the necessary physical examinations to be made of the men before they are discharged from the army. The old requirement of three years' service, including at least ninety days' active service before being eligible for promotion, has been eliminated.

4. In case of death from causes in line of duty the government pays to the widow or designated beneficiary six months' pay of the grade held by the deceased at the time of death. The deceased's family is also entitled to a pension.

5. The limited number of quarters at the majority of stations and camps make it inadvisable for officers of the Reserve Corps to be accompanied by their families, unless they can provide for them independently.

6. In no event will the families of officers be allowed to accompany them abroad.

7. Officers of the Medical Reserve Corps under the age of forty-five years will be called for training in the medical officers' training camps. This is for the purpose of giving intensive training in administrative duties, a requirement for military service. Men over forty-five years, if they so elect, may attend a medical officers' training camp. If a surgeon has had military training, he may be called, without camp instruction, for active duty.

Army Insignia, Indicating Rank, Branch of the Service, and Personal Record, Worn by Officers and Soldiers.

The uniform of the United States Army stands for democracy. It is almost the same for all ranks from private to Commanding General—so much so, in fact, that it is often difficult to recognize a man's place in the service at first glance. But a closer view will tell the whole story to any experienced observer.

"Insignia" is the term used to include all the badges, buttons, braids, hat cords, and other devices, which indicate these three things:

1. The rank of each officer or soldier.
2. His branch of the service or his special duties.
3. His personal experience or record.

Insignia of Rank.

Above the non-commissioned officers, rank is shown by various insignia on the shoulder loops of coats, on the sleeves of coats and overcoats, on the collars of shirts, and by hat cords. The most important are those made of metal and sewn or pinned on the shoulder loops and shirt collars. A Major General has two silver stars; a Brigadier General, one silver star; a Colonel, a silver eagle; a Lieutenant-Colonel, a silver oak leaf; a Major, a gold oak leaf; a Captain, two silver bars, and a First Lieutenant, one silver bar. A Second Lieutenant has no shoulder insignia. You can readily tell the rank of any officer by glancing at these metal insignia.

It is often quite necessary, however, to recognize that some one at a little distance is a commissioned officer in order that you may treat them with the courtesy due to all officers. In this case you look for the marks indicating that a man holds a commission without waiting to observe his exact rank. Until recently, commissioned officers customarily wore leather leggings, while all enlisted men wore canvas leggings. However, leather leggings may now be worn by mounted men. The hat cord is another mark of rank which is easily observed; the hat cords of Generals are gold; those of other officers are of gold and black. Another mark of an officer is a band of brown braid about three inches from the end of the coat sleeve. Officers of the General Staff Corps wear black braid instead of brown. On overcoats the braid is sewn on in loops, except that of general officers, who wear two black bands of braid.

Medical Officers' Training Camps.

Allentown, Pa.: 150 students (Ambulance Corps).
Fort Benjamin Harrison, Ind.: 1,200 students.
Fort Des Moines, Iowa: 75 students (colored).
Fort Oglethorpe, Ga.: 1,300 students.
Fort Riley, Kans.: 900 students.
Total approximate numbers attending, 3,625 students.—*Official Bulletin.*

The Medical Section of the State Committee of National Defense.

The Medical Section of the State Committee on National Defense, under joint instruction from the American Red Cross and from the Council of National Defense, is to consist of the original committees for Louisiana of the Red Cross and on Medical Per-

paredness, together with the medical member of the State Committee of National Defense appointed by the Governor, the President and Secretary of the State Medical Society, the ranking medical officer of the Louisiana National Guard, the Surgeon of Jackson Barracks, the deans of the medical schools in the State, the officers of the Medical Reserve Corps, and other citizens who have aided in medical preparedness.

The Committee has, therefore, been organized accordingly, including also the chairmen of the Parish Auxiliary Defense Committees, so far as these have responded. A number of parishes have failed to act. As soon as the tardy parishes have reported, the chairmen of committees of these will be added.

PERSONNEL OF MEDICAL SECTION.

All of the Commissioned Officers of the Medical Reserve Corps.

Dr. Charles L. Chassaignac, New Orleans, Dean Graduate School of Medicine, Tulane University of Louisiana.

Dr. S. M. D. Clark, Lieutenant, M. R. C., New Orleans, member and Chairman of the original Committee.

Dr. L. R. DeBuys, New Orleans, Secretary Louisiana State Medical Society and member of original Committee.

Dr. Oscar Dowling, New Orleans, President State Board of Health and member of State Committee of National Defense.

Dr. Homer Dupuy, New Orleans, Dean Post-Graduate Medical School of Loyola University.

Dr. Isadore Dyer, New Orleans, member of original Committee and Dean Tulane School of Medicine.

Dr. Hermann B. Gessner, New Orleans, member of original Committee.

Dr. J. B. Guthrie, New Orleans, member of original Committee.

Dr. Randell Hunt, Shreveport, Captain M. R. C. and member from Shreveport.

Dr. H. W. Kostmayer, New Orleans, Staff, New Orleans Charity Hospital.

Dr. W. W. Leake, New Orleans, Staff Illinois Central Hospital.

Dr. E. L. Leckert, New Orleans, member from New Orleans.

Dr. Rudolph Matas, New Orleans, Major, M. R. C., and State member of Committee of National Defense.

Mr. Fred Matthews, New Orleans, Secretary New Orleans Charity Hospital.

Dr. Charles McVea, Baton Rouge, Captain, M. R. C., and President Examining Board for Medical Reserve Corps.

Dr. C. Jeff Miller, New Orleans, Captain, M. R. C., and member of original Committee.

Dr. P. J. O'Kelly, New Orleans, Staff, Presbyterian Hospital.

Dr. J. A. O'Hara, New Orleans, member from New Orleans.

Dr. W. Glendower Owen, Whitecastle, Major, M. R. C.

Dr. Frederick W. Parham, New Orleans, Major, M. R. C., and member of original Committee.

Dr. W. M. Perkins, New Orleans, Lieutenant, M. R. C., and member of Examining Board, M. R. C.

Dr. Clarence Pierson, Jackson, President Louisiana State Medical Society.

Dr. O. L. Pothier, New Orleans, Major and ranking medical officer Louisiana National Guard.

Dr. W. H. Seemann, New Orleans, Captain, M. R. C., Surgeon-in-Charge, Jackson Barracks, and member of original Committee.

Dr. Marion Souchon, New Orleans, Major, M. R. C., and Staff Hotel Dieu.

Dr. S. W. Stafford, New Orleans, Superintendent, New Orleans Charity Hospital.

Mr. A. B. Tipping, New Orleans, Superintendent of Touro Infirmary.

All Chairmen of Parish Auxiliary Defense Committees.

Allen—Dr. C. Louis Gaulden, Elizabeth.

Bossier—Dr. D. J. McAnn, Atkins.

Caddo—Dr. J. C. Willis, Shreveport (also member of original Committee).

Catahoula—Dr. E. R. Yancey, Jonesville.

Claiborne—Dr. C. C. Craighead, Athens.

East Carroll—Dr. W. H. Hamley, Lake Providence.

Evangeline—Dr. J. C. Vidrine, Vidrine.

Jefferson Davis—Dr. N. S. Craig, Jennings.

Morehouse—Dr. O. M. Patterson, Bastrop.

Orleans—Dr. J. F. Cocker, New Orleans.

Plaquemines—Dr. H. L. Ballowe, M. R. C., Buras.

Richland—Dr. H. C. Chambers, Girard.

Point Coupee—Dr. R. M. G. Carruth, New Roads.

St. Martin—Dr. P. H. Fleming, St. Martinville.

Tangipahoa—Dr. E. L. McGehee, Hammond.
Union—Dr. R. L. Love, Farmerville.
Washington—Dr. E. E. Lafferty, Bogalusa.

Executive Committee.

ISADORE DYER, Chairman.
L. R. DEBUYS, Secretary-Treasurer.
OSCAR DOWLING,
E. L. LECKERT,
CHAS. MCVEA,
C. JEFF MILLER.
S. W. STAFFORD.

N. B.—Other parishes not yet heard from.

NEWS AND COMMENT

THE ST. JOHN-ST. CHARLES BI-PARISH MEDICAL SOCIETY held its regular quarterly meeting on September 5, at Reserve, La., with the following members present: Dr. L. T. Donaldson, Sr., vice-president and acting president; Drs. S. Montegut, L. A. Caboche and L. Cheves Tebo, secretary-treasurer.

THE UNITED STATES CIVIL SERVICE COMMISSION announces an open competitive examination for physician, for men only, to fill vacancies in the positions of physician in the Indian and Panama Canal services, acting assistant surgeon in the Public Health Service, surgeon in the Coast and Geodetic Survey, etc. Salaries will range from $480 to $1,800 per year, according to the time and service, except in the Philippines, where the allowance for subsistence is $2.50 per diem. Until further notice, and on account of the urgent needs of the service, applications will be received at any time. Papers will be rated promptly and certification made as the needs of the service require. For further information, apply for Form 1312, stating title of the examination required, to the Civil Service Commission, Washington, D. C., or to the secretary, United States Civil Service Board, in the various cities in the United States and its possessions.

COMMISSIONED MEDICAL RESERVE OFFICERS.—The number of commissioned medical reserve officers, up to August 23, passed 9,000. The number recommended by the Surgeon-General for commissions is approximately 15,000. He estimated that 5,000 more would be needed in the near future. This will require an intensified campaign in every State in order to get the desired number.

Cultures to Be Handled by the Trustworthy.—At the suggestion of Surgeon-General Blue, of the U. S. Public Health Service, the State Committee of National Defense, Medical Section, have been asked to communicate with all pathologists, bacteriologists and scientific workers who may have in their possession cultures of virulent bacteria, and caution them against entrusting such cultures to others than those in whom absolute confidence can be placed. This applies to the bacteria pathogenic to both man and animals.

Major Highest Rank.—Although the Medical Reserve Corps will number at least 20,000 officers, many of them of the highest qualifications, no commission higher than Major can be granted to them. If the Owen amendment to Senate Bill 1786 is passed, one Major-General and one Brigadier-General will be created in the M. R. C. for each 400 officers, with four Colonels and four Lieutenant-Colonels in every hundred officers. This change is found necessary in order that M. R. C. officers abroad may not rank inferiorly to men of similar qualifications in the armies of the Allies.

Demonstrations by Dr. Carrel and Others.—On August 12, after the meeting of the General Medical Board at the Rockefeller Institute, New York City, Dr. Carrel gave a brief description of the technic elaborated by himself and Dr. Dakin and exhibited a series of pictures and results of their methods in the conservation of life and limb. Dr. LeConte, of Philadelphia, presented the claims of dichloramine-T, Dakin's latest antiseptic preparation, twenty times as powerful as the watery solutoin used in the Carrel method, dissolved in oil of eucalyptus and applied by a spray. The claim for superior merit is based on an experience of over 4,000 cases at the hands of Lea, of the Pennsylvania Hospital, and its entire junior staff, and Cummins, surgeon to the Midvale Steel Corporation. Dr. Bull gave an astonishing laboratory exhibition of his recently elaborated gas gangrene bacillus antitoxin, showing animals enormously distended and with great rapidity, by injection of the toxin; others protected by injection of the antitoxin, showing, moreover, that in animals the previous injection of the antitoxin protects against a léthal dose of the active bacillus, and that, after the development of cases of gangrene, both growth and toxic absorption are inhibited by the injection of antitoxin. Dr. Meltzer gave a convincing demonstration of both the efficiency and simplicity of his method of artificial respiration. There followed an inspection of the first completed military hospital.

THE AMERICAN PUBLIC HEALTH ASSOCIATION CONGRESS that was to be held in New Orleans in December has decided to meet in Washington, D. C. This is because war hygiene is a subject of such importance at the present time that the congress believes it can better help solve the war problems from the sanitary standpoint by making this change.

THE CLINICAL CONGRESS OF SURGEONS OF NORTH AMERICA, which was scheduled to hold its annual meeting in New York, has changed its plans. Preliminary plans have been made for a "War Convention" to be held in Chicago during the week of October 22.

FRENCH EMBARGO ON MAGNESIA.—By cablegram from Paris, August 7, the American consul-general announced that, after August 9, magnesia and carbonate of magnesia, subject to the usual exceptions, would no longer be exported from France.

STATUS OF MEDICAL STUDENTS AND HOSPITAL INTERNS FOR WAR SERVICE.—The Provost Marshal General has sent the following to Governors of all States::

"The President prescribes the following supplemental regulations governing the execution of the selective service law:

"First.—Hospital interns who are graduates of well-recognized medical schools or medical students in their fourth, third or second year in any well-recognized medical school who have not been called by the local Board may enlist in the Enlisted Reserve Corps provided for by Section 55 of the National Defense Act, under regulations to be issued by the Surgeon-General, and if they are thereafter called by a local Board they may be discharged on proper claim presented, on the ground that they are in the military service of the United States.

"*May Apply for Discharge.*—Second. A hospital intern who is a graduate of a well-recognized medical school or a medical student in his fourth, third or second year in any well-recognized medical school, who has been called by a local Board and physically examined and accepted, and by or in behalf of whom no claim for exemption or discharge is pending, and who has not been ordered to military duty, may apply to the Surgeon-General of the Army to be ordered to report at once to a local Board for military duty, and thus be inducted into the military service of the United States, immediately thereupon to be discharged from the National Army for the purpose of enlisting in the Enlisted Reserve Corps of the Medical Department. With every such request must be enclosed a

copy of the order of the local Board calling him to report for physical examination (Form 103), affidavit evidence of the status of the applicant as a medical student or intern, and an engagement to enlist in the Enlisted Reserve Corps of the Medical Department.

"Will Not Be sent to Camp.—Upon receipt of such application, with the named enclosures, the Surgeon-General will forward the case to the Adjutant General with his recomemndations. Thereupon the Adjutant General may issue an order to such intern or medical student to report to his local Board for military duty on a specified date, in person or by mail or telegraph, as seems most desirable. This order may issue, regardless of the person's order of liability for military service. From and after the date so specified, such person shall be in the military service of the United States. He shall not be sent by the local Board to a mobilization camp, but shall remain awaiting the orders of the Adjutant General of the Army. The Adjutant General may forthwith issue an order discharging such person from the military service for the convenience of the government.

"Three official copies of the discharge order should be sent at once by the Adjutant General to the local Board. Upon receipt of these orders the local Board should enter the name of the man discharged on Form 164A and forward Form 164A, together with two of the certified copies of the order of discharge, to the mobilization camp to which it furnishes men. The authorities at the mobilization camp will make the necessary entries to complete Form 164A, and will thereupon give the local Board credit on its net quota for one drafted man."

Mississippi Valley Association Meeting.—The forty-third annual meeting of the Mississippi Valley Medical Association will be held at the Hotel Secor, Toledo, October 9-11, under the presidency of Dr. Channing W. Barrett, Chicago. On the last day of the meeting a joint session will be held with the Inter-State Association of Anesthetists. The principal symposiums will be on "Surgery of the War," "Otology and Ophthalmology," "Goiter," and "Syphilis." Dr. Joseph C. Bloodgood, Chicago, will deliver the oration in surgery.

Hookworm in Recruits.—The discovery of forty-seven cases of hookworm in seventy-five recruits mobilized for war service has caused the U. S. Public Health Service to recommend the prompt examination for hookworm of all units of the National Guard and National Army, especially those from the South.

School for Crippled and Blind.—Mr. Jeremiah Milbank, of New York City, has contributed $50,000 towards the establishment of a Red Cross institute for teaching crippled and blind men to be self-supporting. Edward T. Devine, of the New York School of Philanthropy, is now in France studying the method of teaching the blind and cripples in the reëducational schools of France.

Nurses Graduate at Hotel Dieu.—The graduating exercises of the Hotel Dieu Training School for Nurses (New Orleans) were held on September 6, 1917. Dr. E. M. Souchon addressed the nurses and Dr. E. S. Lewis conferred the diplomas. Twelve were awarded diplomas.

Meeting of Military Dental Surgeons.—The annual meeting of the Association of Military Dental Surgeons of the United States will be held at Hotel Astor, New York, on October 23. All dentists, commissioned or otherwise, are invited to attend. Papers will be read by dental surgeons of the regular army on subjects of interest to military dental surgeons.

To Standardize Hospitals.—A fund of $500,000 has been established by the American College of Surgeons for the purpose of conducting a ten-year investigation of the hospitals of this country. A national board of physicians and surgeons has been appointed to carry on this work of standardizing hospitals.

Gift to Hospital.—Mount Sinai Hospital has received more than $150,000, bequeathed by Julian A. Hellman, of New York, for reasearch work in discovering a cure for cancer.

Zinc Oxide Contains Lead.—The Bureau of Chemistry of the United States Department of Agriculture recently found that nearly all of the samples of oxide of zinc examined contained an excessive amount of lead, and that very little oxide of zinc on the market in the United States complies with the standards of the United States Pharmacopœia. Physicians may protect themselves and their patients from possible injury by calling for U. S. P. zinc oxide on their prescriptions, which may be obtained from the limited supply of this material.

Personals.—Among the doctors in New Orleans who have returned from their summer vacations and resumed practice are: Drs. H. B. Gessner, R. C. and W. M. Lynch, Chas. Chassaignac, A. S. Yenni, J. M. Batchelor, Theo. F. Kirn, Wm. G. Troescher, Geo. S. Bel, Maurice Feingold, W. W. Butterworth, J. L. Purser, L. J. Stumpf and Allen Eustis.

A cable has been received from Dr. J. S. Ullman, of Natchez, Miss., captain in the United States Medical Reserve Corps, announcing his safe arrival in France.

Col. James S. Gasaway, Senior Surgeon, retired, United States Health Service, was in New Orleans last month visiting his son, Capt. Gerrish Gassaway, of the Washington Artillery. Col. Gassaway was formerly stationed in New Orleans at the United States Marine Hospital.

Dr. J. T. O'Ferrall (New Orleans) sailed for France to join the Orthopedic Unit under Mr. Robert Jones, the celebrated English orthopedic surgeon. Capt. O'Ferrall will remain in this work until the expiration of the war.

REMOVALS.—*Journal of the Oklahoma State Medical Association*, from 508 Barnes Building, to 307 Surety Building, Muskogee, Okla.

Dr. H. Buck, from Kinder to Evergreen, La.

Dr. L. V. Lopez, M. O. R. C., from Godchaux Building, New Orleans, to Fort Russell, Wyoming.

Dr. W. B. Terhune, from East Louisiana Hospital for the Insane, Jackson, to 4516 Perrier street, New Orleans.

Dr. T. W. Evans, from the Louisiana Hospital for the Insane, Jackson, to Base Hospital No. 1, Fort Sam Houston, Texas.

Dr. H. Jenkins, M. O. R. C., Company 10, from Eunice, La., to Fort Riley, Kans.

Dr. P. Graffagnino, to 815 Whitney-Central Building, New Orleans.

Dr. J. H. Ellis, to 1632 Dryades street, New Orleans.

Drs. F. A. Larue and P. L. Thibaut, from Tulane-Newcomb Building, to 1230 Maison Blanche Building, New Orleans.

MARRIED.—At Houston, Texas, on August 2, 1917, Dr. Rhett Goode Korniker, of McNary, La., to Miss Elizabeth Gokey.

On September 5, 1917, Dr. Peter Blaise Salatich to Miss Miss Gladys Claire Malter, both of this city.

DIED.—On September 2, 1917, from automobile accident, in New Orleans, Dr. Delphin Bienvenu, aged 81. Dr. Bienvenu was the oldest living graduate of Spring Hill College, Mobile, Ala., and was an active physician in New Orleans from the close of the Civil War up to a few years ago.

BOOK REVIEWS AND NOTICES

All new publications sent to the JOURNAL *will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the* JOURNAL *to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.*

Anatomical Names, by A. C. Eycleshymer, D. M. Shoemaker and Roy L. Moodie. William Wood & Co., 1917.

The object of this book is a further aid toward accomplishing the much-needed discarding of the 45,000 superfluous and confusing anatomical names and toward inducing familiarity with the strict use of the 5,000 internationally accepted names in their stead.

It is unnecessary to repeat here the many self-evident and accepted reasons for the universal use of one single set of names for the structures of the body and for the use of the "BNA" as that set. While the "BNA" **(Die im Basle Nomina Anatomica genommen)** is not, and cannot be expected to be, as yet absolutely perfect and complete, its use by teachers and students is so recognized as necessary to avoid confusion and conserve so large a proportion of the student's energy otherwise exhausted in the memory effort entailed, that its use has come to be one of the criteria by which the grade of a school and the men in a school may be judged. Beyond departments of anatomy, the surgeons and clinicians are heartily coöperating by adoption and use of the terms. However, some pathologists of fair standing are still using the peculiar language constructed among themselves. If these latter would but adopt a strict use of the "BNA" their descriptions of their variations from normal structures would be immediately intelligible to the student knowing his anatomy, and the frequent impression of enforced narrowness and desired mysticism in their science would be removed. Further, the pathologists would be induced to use more knowledge of actual accepted anatomy in their teaching.

The preface of the book gives a brief history of anatomical names from the beginnings of science, the gradual growth of a Babel of names, a statement of the conception, in 1887, of a commission for coöperation in choosing a set of names for universal use, and the history of the appointment of such a commission. Though the idea of the commission was born at a meeting of anatomists in Leipsig, the final personnel of the commission included 129 members from other countries than Germany.

Next follows an excellent translation and adaptation of the report by Prof. His of the productive meeting of the commission in Basle in 1895, at which most of the names now comprising the "BNA" were adopted. This report gives not only the well-known classified list of the names chosen, but also useful reports of the discussions of the rules governing the actions of the commission and of the debates and reasons for the adoption of certain names, the use of which might be questioned.

By no means the least valuable part of the book is a section of "Biographical Sketches" contributed especially by Prof. Moodie. This comprises brief sketches of some 800 of the leading anatomists of the world, exclusive of the living. Under the name of each is given his nationality, profession, places and dates of birth and death, positions

held, important discoveries, chief anatomical writings, and the anatomical structures at times associated with his name. It is not only of general interest, but it is most valuable as a handy reference from which the student may learn of a man whose name at times may be given with the name of a structure in the body.

Nearly half of the text is an "Index and Synonym Register." This comprises the distinctive purpose of the book. It contains a much-needed and the only existing alphabetically arranged complete list of the "BNA" terms, and, more, it incorporates some 20,000 of the older terms synonymous with the "BNA," each of which bears a numeral citing its equivalent "BNA" term. Thus, by it, the student, given one of the older terms, may easily determine the correct name that should have been given. IRVING HARDESTY.

Principles of Pharmacy, by Henry V. Arny, Ph. G., Ph. D., F. C. S., Professor of Chemistry in the College of Pharmacy in the Columbia University; sometime Dean and Professor of Pharmacy in the School of Pharmacy of Western Reserve University; member of the Committee on Revision of the United States Pharmacopœia, Ninth Revision; member of the Committee of Revision of the National Formulary, Fourth Edition. Second edition, revised, with 267 illustrations. W. B. Saunders Company, Philadelphia and London, 1917.

To write a textbook on the subject of pharmacy, embracing, as it does, so many collateral branches of science, is truly a gigantic task, for it must be designed to meet the needs of the drug-store apprentice, the student of pharmacy at school and the finished practicing pharmacist.

Such a book must be written by one who knows whereof he speaks and who possesses the happy faculty of presenting facts in a clear and comprehensive manner. That Dr. Arny has met these requirements in a masterful way is evidenced by the cordial reception accorded the first edition of his work.

The advent of the ninth revision of the United States Pharmacopœia and the fourth edition of the National Formulary has brought the need of the second edition. While the rapid strides made in pharmacy, medicine and chemistry have made a radical revision of the work necessary, we are glad to note that the author has adhered to the same excellent arrangement of subjects, dividing the book into several distinct parts and subdividing each part into chapters. It is to be regretted, however, that in the new edition all of the recipes for official galenical preparations are given in condensed form, the reader being referred to the U. S. P. for details.

The same criticism applies to official compounds, where only a summarized description is given.

There are two features of Dr. Arny's book which make it unique and invaluable, one being the "Remarks" following each subject throughout the book and answering the "whys" suggested in the text; the other is the helpful list of bibliographical references to be found at the end of each chapter. Striking features also are those parts discussing the arithmetic of pharmacy, the prescription and the outline of laboratory work.

The book contains 267 well-chosen illustrations. Truly the work is exhaustive, without being exhausting, and we know of no treatise so well adapted to the needs of the pharmacist. GEO. S. BROWN.

Diagnosis from Ocular Symptoms, by Matthias Lanckton Foster, M. D., F. A. C. S. Rebman Company, New York.

Years ago Da Costa's "Medical Diagnosis" was our great work on diagnosis in internal medicine, and it still remains a great work. Other treatises on surgical as well as medical diagnosis have enriched medical literature during the course of the past generation. Such works were rendered necessary by the constant increase in our knowledge of pathology and symptomatology. The process of keeping up with new and valuable facts goes on unremittingly, and new fields are constantly being enlarged or discovered. Such growth in scientific knowledge naturally evolves into specialized departments. An evidence of such a healthy growth is Foster's "Diagnosis from Ocular Symptoms." This volume of nearly 500 pages is arranged in a most orderly and scientific manner, so that it will serve for systematic study as well as for reference.

In his preface the author deplores the fact the arrangement he has adopted gives critics some ground for saying that his method is not a system, but an unscientific lack of one. If any such defect really exists in this grand work, the present reviewer cheerfully confesses his inability to detect it.

There are no illustrations in Foster's work. After mature deliberation he declined the generous offer of his publisher to use illustrations, because he felt that, with earnest seekers after truth, word-pictures should suffice. These pen-pictures "bring out strongly the points through which differentiation is made, and it is practically impossible to present these points in a plate so as to make clear the differentiation between two conditions that closely resemble each other."

The system Foster follows is the well-tried one of taking a cardinal symptom, such as would first hold the attention of the physician as the central figure in the clinical fields, and from this to work outward toward an accurate diagnosis by a process of elimination. Such a method naturally causes a repetition or duplication of material in different parts of the book, but such repetition in no way detracts from the merits of the work.

Dr. Foster has contributed a noteworthy addition to modern ophthalmological literature, and one that seems assured of a long lease of favor among the profession. McSHANE.

Practical Medicine Series, comprising ten volumes on the year's progress in medicine and surgery. Vol. III. The Eye, Ear, Nose and Throat. Series 1917. The Yearbook Publishers, Chicago.

We have previously had occasion to comment on some numbers of this excellent series of yearbooks. While the series is published primarily for the benefit of the general practitioner, at the same time it is so arranged that specialists in certain lines may buy only those volumes that appeal to them. In the present volume much space has been devoted to the military surgery of the eye, from experience derived in the present world-war. The three departments are ably edited by men who occupy prominent places in their respective specialties, and who, **ex-officio** as teachers, keep themselves posted on all new developments along their chosen line. The present number maintains the high standard that characterizes the entire series. McSHANE.

Cataract: Senile, Traumatic and Congenital, by W. A. Fisher, M. D., Professor of Ophthalmology, Chicago Eye, Ear, Nose and Throat College. Chicago: Published by the College, 1917.

This book is small, as books go nowadays, but is a thorough and exhaustive treatise on cataract. It devotes a reasonable amount of space to the historical development of this brilliant phase of ophthalmic surgery, but it is chiefly to be commended for its clear and complete description of the most recent and most fruitful advances in this branch of the medical art. We have already had the pleasure of carefully studying some parts of the present book, since it consists, in large measure, of Fisher's previous contributions to current medical literature. Dr. Fisher describes fully the Smith Indian operation, to see which he journeyed to Amritsar, India, to study the technic in Smith's own vast clinic. Dr. Fisher is no mere compiler of other men's views, for he has devised certain instruments which notably lessen the danger of complications, and he has perfected a technic of his own which places him in the front rank of orignal workers. Dr. Fisher's book deserves an honored place in the library of every ophthalmologist. McSHANE.

Glaucoma. A Handbook for the General Practitioner, by Robert Henry Elliott, M. D., Lieutenant-Colonel. I. M. S. (retired), etc. Paul B. Hoeber, New York, 1917.

In this monograph of fifty-seven pages the general practitioner will find a clear and safe guide in handling unsuspected cases of glaucoma that are too often set down as mere attacks of trigeminal neuralgia. The incidence of glaucoma is greater than most physicians realize, and, inasmuch as early diagnosis has an important bearing on successful treatment, it needs no arguing to demonstrate to the general practitioner the importance of learning how to differentiate incipient glaucoma from those neuralgic conditions for which a patient usually first consult him instead of an oculist. Dr. Elliott's work is not controversial. His aim has been to be of service to the general practitioner. Dr. Elliott is the originator of sclero-corneal trephining, which has sometimes been confused with other trephining operations, but is essentially different from them. His qualifications to speak on the subject of glaucoma are of the highest. His present small volume will be of great value not only to the general practitioner, for whom it is primarily intended, but to the ophthalmologist as well. Dr. Elliott has a vast amount of material on hand for the preparation of an exhaustive treatise on glaucoma. The present world-war has postponed the appearance of the large work, but, if we may judge from this smaller book, the forthcoming work will be an epochal contribution to ophthalmological literature. McSHANE.

Handbook of Suggestive Therapeutics, Applied Hypnotism, Psychic Science, by Henry S. Munro, M. D. C. V. Mosby Company, St. Louis.

Sifting the mass of material contained in this volume of some 450 pages, one agrees with the contention of the author, that the subject of suggestive therapeutics in America has been wofully neglected, and his book is an excellent argument for a reform. Most of the men in this country who deal with the psychiatic side of medicine and who are qualified to speak have been rather silent with reference to this field of therapeutics, while a number of Europeans have gone far and have labored well. The author of the book in review may serve excellently as an exhorter, and he seems to have had a large experience in his chosen field. We may doubt some of his applications, but there can be no question of his own faith in the possibilities of his endeavor. DYER.

PUBLICATIONS RECEIVED

THE YEARBOOK PUBLISHERS, Chicago, 1917.

The Practical Medicine Series. Volume IV: **Gynecology,** edited by Emilius C. Dudley, A. M., M. D., and Sidney S. Schochet, M. D. Volume V: **Pediatrics,** edited by Isaac A. Abt, M. D., with the collaboration of A. Levinson, M. D.. **Orthopedic Surgery,** edited by John Ridlon, A. M., M. D., with the collaboration of Charles A. Parker, M. D. Series 1917.

W. B. SAUNDERS COMPANY, Philadelphia and London, 1917.

The Rœntgen Diagnosis of Diseases of the Alimentary Canal, by Russell D. Carman, M. D., and Albert Miller, M. D.

A Handbook of Practical Treatment, by many writers. Edited by John H. Musser, Jr., B. S., M. D., and Thomas C. Kelly, A. M., M. D. Volume IV.

Desk Index to Musser-Kelly Treatment. Vols. I, II, III and IV.

P. BLAKISTON'S SON & CO., Philadelphia, 1917.

The Diagnosis and Treatment of Tropical Diseases, by E. R. Stitt, Ph. G., M. D. Second edition, revised and enlarged.

WASHINGTON GOVERNMENT PRINTING OFFICE, Washington, D. C., 1917.

Public Health Reports. Volume 32, Nos. 31, 32, 33, 34 and 35.

Birth Statistics for the Registration Area of the United States, 1915. Department of Commerce, Bureau of the Census.

National Service Handbook. Issued by the Committee on Public Information.

Report of the Health Department of the Panama Canal. June, 1917.

Family Allowance, Indemnity, and Insurance for Officers and Enlisted Men of the Army and Navy. Presented by Mr. Fletcher.

MISCELLANEOUS:

Transactions of the Society of Tropical Medicine and Hygiene. (Society of Tropical Medicine and Hygiene, London, England.)

REPRINTS.

Japanese Medical Literature. A review of current periodicals. (Presbyterian Mission Press, Shanghai, China.)

Abscess of the Liver, by A. I. Ludlow, M. D.

Beech Nut Embedded in a Potato; Notes on Hippochaete, by O. A. Farwell.

The Value of the Prophylactic Administration of Typhoid Vaccine, With a Study of the Widal Reaction, by J. Clement Clark, M. D.

Digitalis Thapsilin, by O. A. Farwell and H. C. Hamilton.

A Sero-Enzyme Study of Bacterial Proteins; Bacteriological Findings in Ozena, by Herbert C. Ward.

Pruritis Ani, by Louis J. Hirschman, M. D., F. A. C. S., and Herbert C. Ward, M. S.

The Ophthalmic Test for Glanders: With a Simplified Method of Procedure, by N. S. Ferry.

Experimental Syphilis, by F. W. Baeslack, M. D.

Sanitation in the Trenches; Bathing Facilities and Habits of the Soldiers and Officers of the Army, by C. C. McCulloch, Jr., M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans, for August, 1917.

CAUSE.	White.	Colored.	Total.
Typhoid Fever	9	6	15
Intermittent Fever (Malarial Cachexia)	1	1	2
Smallpox			
Measles			
Scarlet Fever			
Whooping Cough	3	1	4
Diphtheria and Croup		2	2
Influenza			
Cholera Nostras			
Pyemia and Septicemia	1		1
Tuberculosis	36	47	83
Cancer	23	11	34
Rheumatism and Gout	2		2
Diabetes	3	1	4
Alcoholism	1	1	2
Encephalitis and Meningitis	3	2	5
Locomotor Ataxia	4		4
Congestion, Hemorrhage and Softening of Brain	17	5	22
Paralysis	1	1	2
Convulsions of Infancy			
Other Diseases of Infancy	17	6	23
Tetanus	2	1	3
Other Nervous Diseases	1		1
Heart Diseases	51	46	97
Bronchitis	1	2	3
Pneumonia and Broncho-Pneumonia	5	7	12
Other Respiratory Diseases	2	2	4
Ulcer of Stomach		1	1
Other Diseases of the Stomach	2	2	4
Diarrhea, Dysentery and Enteritis	27	25	52
Hernia, Intestinal Obstruction	2	1	3
Cirrhosis of Liver	2	3	5
Other Diseases of the Liver	4		4
Simple Peritonitis			
Appendicitis	4	1	5
Bright's Disease	30	27	57
Other Genito-Urinary Diseases	14	9	23
Puerperal Diseases	3	4	7
Senile Debility	3	1	4
Suicide	3		3
Injuries	26	14	34
All Other Causes	33	10	43
TOTAL	330	240	570

Still-born Children—White, 16; colored, 25; total, 41.

Population of City (estimated)—White, 276,000; colored, 102,000; total, 378,000.

Death Rate per 1000 per Annum for Month—White, 14.35; colored, 28.23; total, 18.09. Non-residents excluded, 15.36.

METEOROLOGIC SUMMARY (U. S. Weather Bureau).

Mean temospheric pressure 29.99

Mean temperature. 83

Total precipitation. . . . . 6.92 inches

Prevailing direction of wind, west.